

Taxonomic Review of Korean Ceutorhynchinae (Coleoptera, Curculionidae) III. Subtribes Coeliodina, Ceutorhynchina, Hypurina, Mecysmoderina, and Tribe Orobittini

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Abstract Twenty Korean species of the subtribes Coeliodina, Ceutorhynchina, Hypurina, Mecysmoderina and tribe Orobittini belonging to the subfamily Ceutorhynchinae (Coleoptera; Curculionidae) are recognized in this study. Of these, *Cyphosenus moholeei* sp. nov. and *Mecysmoderes nigrinus* sp. nov. are new to science, and *Coeliodes brunneus* Hustache, *Coeliodes nakanoensis* Hustache, *Phytobiomorphus bifasciatus* Voss, *Cardipennis sulcithorax* Hustache, *Ceutorhynchus diffusus* (Hustache), *Ceutorhynchus sulcicollis* (Paykull), *Hypurus bertrandi* (Perris) and *Orobitis apicalis* Kôno are new to Korean fauna. Descriptions and illustrations of male genitalia, head, antennae and legs for new species to Korean fauna are provided.

Key words Ceutorhynchinae, Curculionidae, Coleoptera, taxonomy, Korea.

SYSTEMATICS

Subtribe Coeliodina Dalla Torre et Hustache, 1930

Coeliodini Dalla Torre et Hustache, 1930, Col. Cat. Pars 113: 11.

Genus *Coeliodes* Schönherr, 1837

Coeliodes Schönherr, 1837, Gen. Spec. Curc. 4(1): 282.

Megacetes Thomson, 1859, Skand. Col. VII: 139.

Key to species of genus *Coeliodes* in Korea

1. Body reddish-brown. Elytra without transverse band *C. brunneus* Hustache
- Body reddish-brown. Elytra with three white band *C. nakanoensis* Hustache

Coeliodes brunneus Hustache, 1916 갈색좁쌀바구미 (新稱)
(Fig. 1)

Coeliodes brunneus Hustache, 1916, Ann. Soc. Ent. Fr. 85: 117. TL: Japan (Mt. Ibuki).

♀: Body reddish-brown, oval form, head, rostrum and median portion of pronotum black, antennal funicle brown, shoulders, transverse band in middle part and ending part of 4th to 9th intervals of elytra blackish brown, sparsely covered with brown pubescence and hairy white scales, the under and lateral sides of body, lateral margins and basal part of pronotum and the base of 1st interval of elytra covered with ovate white scales.

Head with distinct median keel to vertex; frons between eyes a little broader than the base of rostrum, slightly depressed; rostrum 1.5 times as long as pronotum, weakly curved, parallel-sided and irregular rows of punctures, apical area less strongly punctured; antenna inserted into the basal two-fifths of rostrum; scape as long as the basal 5 segments of funicle taken together, apical two-fifths clubbed, apex rounded and with 2-3 long brown seta; funicle 7 segments, 1st funicular segment with robust, 3 times as long as wide, 2nd segment shorter than the 1st, a little longer than the 3rd, and longer than the 4th, 5th to 7th segments subequal in length to each other, each segment longer than wide; club fusiform, shorter than the basal 2 segments of funicle taken together, twice as long as wide, 1st segment of club conical, a little longer than wide, 2nd segment quadrate, twice as broad as long and 1/2 times as long as the 1st, each segment of antenna with several long hairs.

Pronotum 2/3 times as long as wide, broadest at the basal one-third, the sides gently rounded, subapical constriction moderate, anterior margin not sinuate at the middle, posterior margin with gently rounded at the middle, dorsum without any projection, adorned with piliferous punctures, median sulcus very weak.

Scutellum moderate, egg-form.

Elytra almost oblong, longer than wide, broadest on the shoulders, the sides sub-parallel and narrowed posteriorly, each apex separately rounded; punctured striae shallow and with a row of hairy scale; interval much broader than striae, each striae with sparsely two or three rows of hairy scale.

Procoxae broadly separated, pectorial canal extending into metasternum. Abdomen with the 1st and 2nd segments sparsely punctured, interval between the punctures broader than the diameter of one puncture, the remaining segments of abdomen closely punctured, 1st and 2nd segments not depressed at the middle, 3rd and 4th segments very short and each with densely piliferous punctures, 5th segment not depressed at the middle and with densely piliferous punctures.

Femora weakly clubbed, without any projection. Tibia almost straight, sub-parallel, corbel fringed with black bristles and the apical one-fifth of outer margin with 4 or 5 black strong bristles.

♂: Unexamined.

Length (excl. rostrum): 2.6 mm.

Material examined. NIAST: JN- 1♀, Nogodan, Mt. Jiri, 3. VIII. 1996, K.J. Hong.

Distribution. Korea (new record: South) and Japan (Honshu, Kyushu).

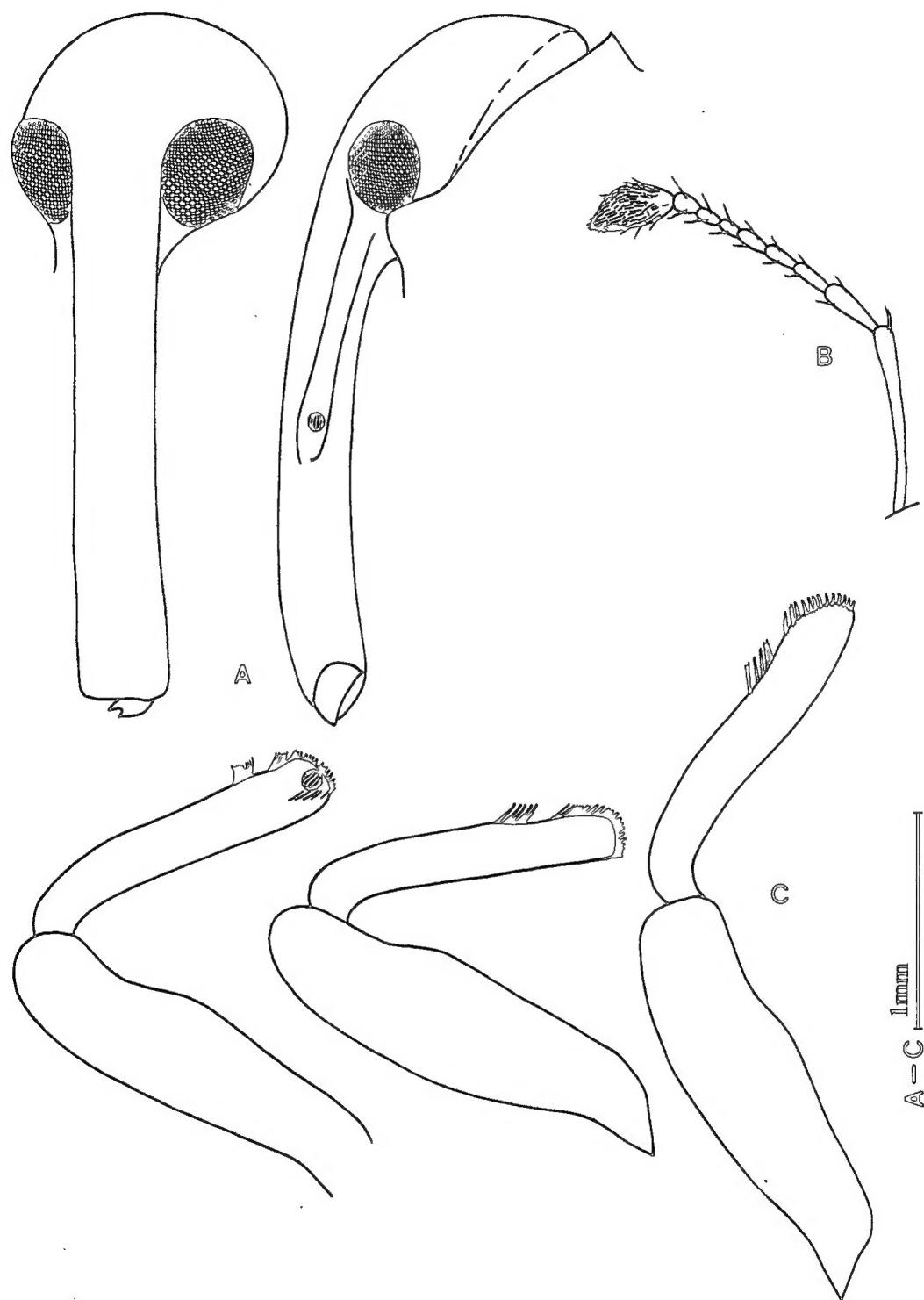


Fig. 1. *Coeliodes brunneus* Hustache, ♀: A. Head and rostrum; B. Antennae; C. Legs.

***Coeliodes nakanoensis* Hustache, 1916** 퍼갈색좁쌀바구미 (新稱)
(Fig. 2)

Coeliodes nakanoensis Hustache, 1916, Ann. Soc. Ent. Fr. 85: 114. TL: Japan (Tokyo).

♂: Body reddish-brown, oval form, rostrum and underside of body black, antennal scape blackish-brown, dimly transverse band in middle part and ending part of 4th to 9th interval of elytra with hairy white scales, sparsely covered with brown pubescence. The under and lateral sides of body, lateral margins and basal part of pronotum and the bases of 1st interval of elytra covered with ovate white scales.

Head with distinct median keel after vertex; frons between eyes as broad as the base of rostrum, slightly depressed; rostrum a little longer than pronotum, weakly curved, parallel-sided and irregular rows of punctures; antenna inserted into the basal half of rostrum; scape shorter than the basal 5 funicular segments taken together, apical one-third clubbed, apex rounded and with 2-3 long brown seta, 1st funicular segment with robust, 2 times as long as wide, 2nd segment shorter than the 1st and a little longer than the 3rd, and 4th to 7th segments subequal in length to each other, each segment longer than wide; club fusiform, a little shorter than the basal 2 segments of funicle taken together, twice as long as wide, 1st segment of club conical, longer than wide, 2nd segment quadrate, twice as broad as long and 1/3 times as long as the 1st, each segment of antenna with several long hairs.

Pronotum 4/5 times as long as wide, broadest at the basal one-third, the sides gently rounded, subapical constriction strong, anterior margin not sinuate at the middle, posterior margin with a triangular small projection at the middle, dorsum without any projection, adorned with piliferous punctures, median sulcus very weak.

Scutellum moderate, lanceolate.

Elytra almost oblong, longer than wide, broadest on the shoulders, the sides sub-parallel and narrowed posteriorly, each apex separately rounded; punctured striae shallow and without row of hairy scale; interval much broader than striae, each interval with two or three rows of hairy brownish scales.

Procoxae broadly separated, pectorial canal extending into metasternum. Abdomen with piliferous punctured, interval between the punctures broader than the diameter of one puncture, 1st and 2nd segments depressed at the middle, 2nd segment with densely piliferous punctures, and 5th segment depressed on median and with densely piliferous punctures, and brown long hairs.

Femora weakly clubbed, without any projection. Tibia almost straight, sub-parallel, corbel fringed with black bristles and the apical one-fifth of outer margin with 3 or 4 black strong bristles.

♀: The 1st, 2nd and 5th abdominal segments not depressed and inner side of apex of tibia without mucro.

Length (excl. rostrum) : 2.4-2.5 mm.

Material examined. NIAST: GW- 1 ♂, Unduryong, Hongchon, 27. V. 1993, D.S. Ku. SNU: 2 ♀, no data.

Distribution. Korea (new record: Central), Japan (Honshu, Kyushu), and Russia (Primor'ye).

Biological notes. Adults were found on *Quercus dentata* Thunb. (Hayashi *et al.*, 1994).

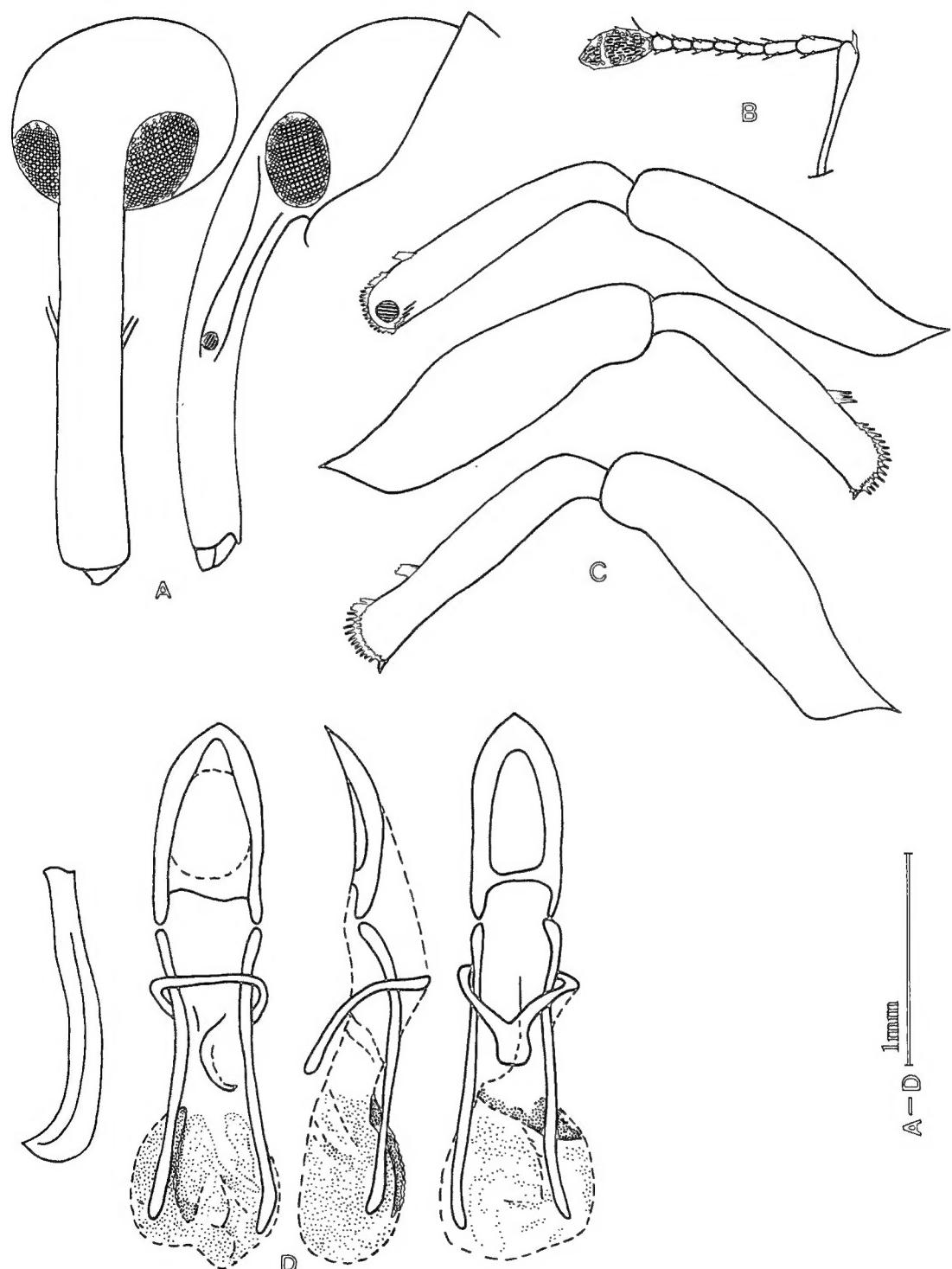


Fig. 2. *Coeliodes nakanoensis* Hustache, ♂ : A. Head and rostrum; B. Antennae; C. Legs; D. Genitalia.

Subtribe Ceutorhynchina Thomson, 1859

Curculionidae s. fam. Rhynchaenides trib. Ceuthorrhynchina Thomson, 1859, Skand. Col. I: 138.

Genus *Phytobiomorphus* Wager, 1939

Phytobiomorphus Wager, 1939, Ent. Bl. 35: 36/62, 199/125, 693. Type-species: *Phytobius variegatus* Hustache.

Phytobiomorphus bifasciatus Voss, 1958 흑줄쌀바구미 (新稱)
(Fig. 3)

Phytobiomorphus bifasciatus Voss, 1958, Decheniana Beihefte V: 65. TL: China (Kuatun).

♂: Body brown to dark brown, oval shape with broad, covered with ovate brown scales.

Head closely punctured, covered with ovate brown scales, with a strong median keel to vertex; frons between eyes strongly concave, broader than the base of rostrum; eyes strongly projected over frons in lateral view; rostrum robust, longer than pronotum, apex with the broadest; antenna inserted into the middle part of rostrum; scape not reached to the front border of eye, shorter than the basal 3 funicular segments taken together; funicle 7 segments, 1st segment with robust, shorter than 2nd and 3rd, 2nd segment a little longer than 3rd, 4th segment shorter than 3rd, 5th to 7th segments same in length, each segment with several long hairs; club spindle shape, 3 segments, basal segment conicile, broader and longer than 2nd.

Pronotum much wider than long, strongly rounded in basal part, narrowed to anterior; subapical constriction very strong, anterior margin sinuate at middle, median longitudinal sulcus very deeply, median disc with a pair of strong projection, apex of each projection with ovate black scales, lateral sides with strong pyramidal projections.

Scutellum small, dark brown.

Elytra trapezoid; scutellar patch densely covered with ovate black scales; punctured striae distinct; intervals covered with ovate yellowish brown scales; protuberances before and beyond middle part of 3rd and 5th intervals covered with black scales.

Underside of body concave, covered with ovate pale-brown scales; pectorial canal deep, extend into metasternum; abdomen hardly covered with scale and puncture in lateral sides and median of 3rd and 4th segments, 5th segment depressed in the middle.

Femur clavate, with strong tooth, hind femora 1.3 times as broad as fore femora; tibia slender, basal part of tibia some curved; 1st tarsal segment 2 times as long as 2nd; claws appendiculate, inner branches separate.

♀: Underside of abdomen not concave and inner side of apex of tibia without mucro.

Length (excl. rostrum): 2.7–2.9 mm.

Material examined. NIAST: GG- 1 ♂, Mt. Yumyong, Kapyong, 14. VI. 1997, K.J. Hong; GW-

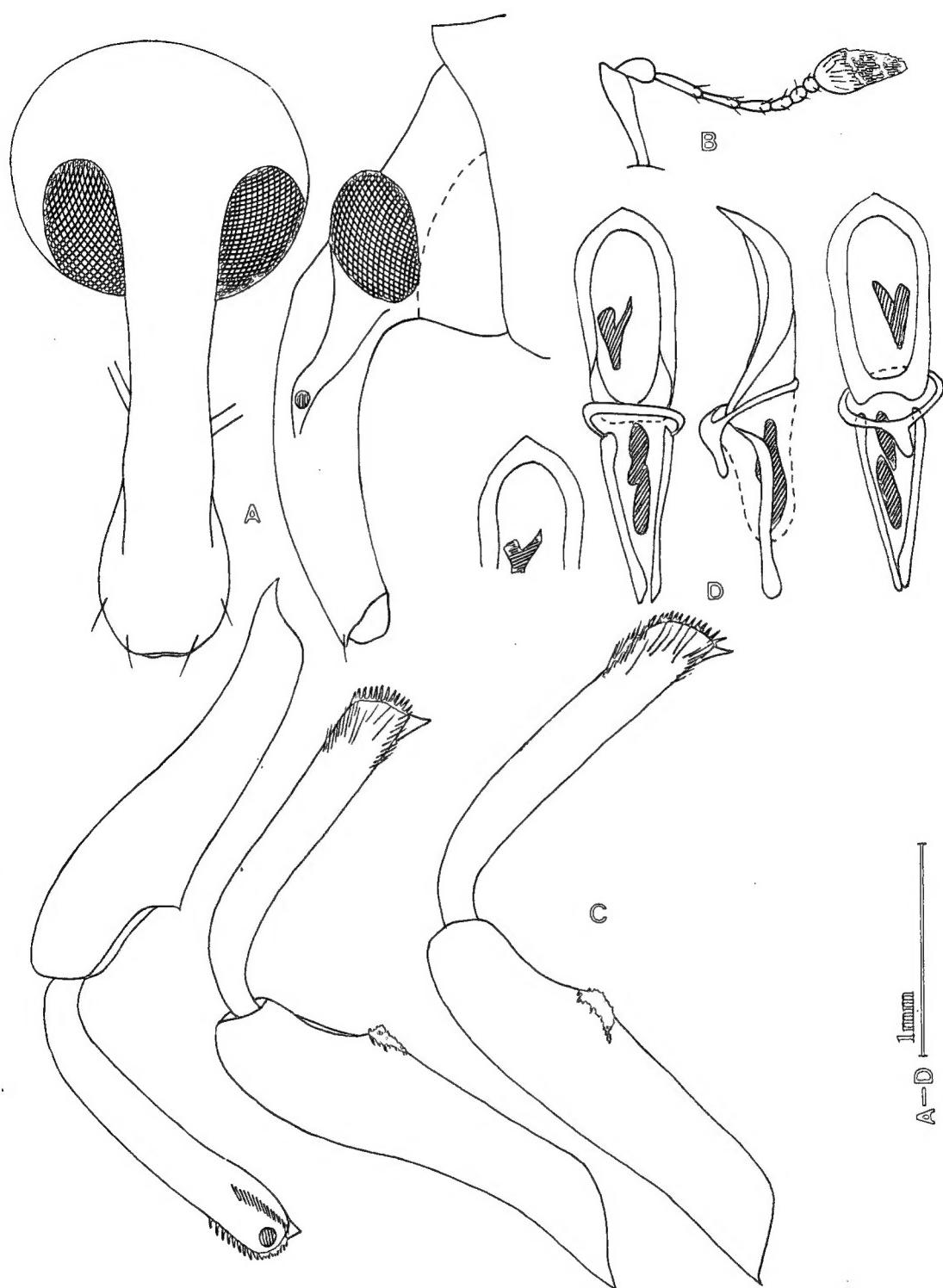


Fig. 3. *Phytobiomorphus bifasciatus* Voss, ♂ : A. Head and rostrum; B. Antennae; C. Legs; D. Genitalia.

♀, Kosong, 25. V. 1993, D.S. Ku; CN- 1♂, Mt. Kyeryong, 31. V. 1975, K.R. Choi; 1♀, Mt. Chilkap, Chongyang, 15. VI. 1992, D.S. Ku. KNU: GG- Mt. Chonma, 28. V. 1976; GW- Mt. Odae, 1. VIII. 1976; JN- Jindo, 18. VII. 1984; KB- Mt. Juwang, 5. VI. 1978; Mt. Hwanghak, 28. VI. 1982; Mt. Palkong, Taegu, 2. VII. 1982; KN- Mt. Jiri, 29. V. 1977; 2exs., Mt. Kaji, 21. V. 1980.

Distribution. Korea (new record: Central, South), Japan (Kyushu), China (Kuatun), and Russia (Primor'ye).

Genus *Sinauleutes* Korotyaev, 1996

Sinauleutes Korotyaev, 1996, Key to the insects of Russian Far East 3(3): 460. Type-species: *Craponius bigibbosus* Hustache, 1916.

Craponius LeConte, 1876, Proc. Amer. Phil. Soc. 15: 268. Type-species: *Auleutes epilobii* Paykull.

Sinauleutes bigibbosus (Hustache, 1916) 알락좁쌀바구미

Craponius bigibbosus Hustache, 1916, Ann. Soc. Ent. Franc. 85: 119. TL: Japan (Mt. Takao).

Phytobiomorphus alternanus Voss, 1958, Decheniana Beihefte V: 65. TL: China (Kuatun).

Length (excl. rostrum): 2.4–2.8 mm.

Material examined. NIAST: GW- 1♂, Mt. Obong, Chunchon, 25. V. 1993, D.S. Ku. KNU: KB- 1♂, 1♀, 7exs., Mt. Palkong, Taegu, 3. VI. 1984; KN- Tongdosa, 24. V. 1980; Samnam, Ulsan, 24. V. 1980.

Previous record. Kwon and Lee (1986): South.

Distribution. Korea (Central, South), Japan (Honshu, Shikoku, Kyushu), and China (Kuatun).

Genus *Augustinus* Korotyaev, 1981

Augustinus Korotyaev, 1981, Entomol. Obozre. 60: 26–159. (subgenus) Type-species: *Cyphosenus longipes* Korotyaev, 1981.

Augustinus grouvellei (Hustache, 1916) 어깨넓은좁쌀바구미 (新稱)

Cyphosenus grouvellei Hustache, 1916, Ann. Soc. Ent. Fr. 85: 121. TL: Japan.

Length (excl. rostrum): 2.2–2.3 mm.

Material examined. KNU: GW- 1♀, Mt. Chiak, 22. V. 1982; KN- 1♂, Mt. Wonhyo, 30. V. 1980.

Previous record. Korotyaev (1981): North.

Distribution. Korea (North, Central, South) and Japan (Honshu).

Genus *Cyphosenus* Schultze, 1899

Cyphosenus Schultze, 1899, Deutsche Entomol. Zeitschr.: 188. Type-species: *Cyphosenus paradoxus*

Schultze, 1899.

Cyphosemus Schultze: Dalla Torre et Hustache, 1930, Col. Cat. Pars 113: 115. [auct. error].

Cyphosenus moholeei Hong et Egorov, sp. nov. 세모발톱쌀바구미 (新稱)
(Fig. 4)

♂: Body nearly rhombus, widest at just behind the humeral area; dark brown, entirely clothed with gray-white and brownish scales.

Head lightly convex, very coarsely reticulate-punctuate with a strong median keel to vertex, very strongly depressed at the frons between eyes; rostrum about as long as pronotum, about as wide as the base of frons between eyes, slightly widened apically, gently curved downwardly; antenna yellow-brown, inserted into a little before the middle of rostrum; scape robust, apex with triangular, not reached to the front border of eye; funicle 7 segments, 1st segment robust, but slightly shorter than 2nd, 3rd segments distinctly shorter than 1st, 3rd to 7th segments gradually diminishing their length terminally; club oblong, pointed at the apex, very finely and closely pubescent.

Pronotum nearly twice as broad as long, gently narrowed toward anterior, dorsum strongly convex, with very strong subapical constriction, median disc especially strongly raised and divided into two hillocks by the presence of a broad median sulcus, the behind outer side of each hillock with pyramidal projection.

Scutellum very small, lanceolate.

Elytra much broader at the base of pronotum; scutellar patch with densely ovate pale-brown scales, just behind of scutellar patch with ovate white scale patch; punctured striae distinct; intervals covered with ovate dark-brown and ovate yellowish-brown scales, the 3rd, 5th and 7th intervals more convex than the others.

Pro- and mesosternum and anterior half of metasternum continuously very broadly and deeply hollowed for the reception of rostrum when in repose; abdomen with the median portion of the 1st segment somewhat depressed, median portion of the 5th segment strongly raised with a large triangular depression at the medio-posterior area and very closely clothed with hairy white scales in this depression.

Legs elongate; femur gradually thickened from the base to a little beyond the middle, strongly emarginated beyond the underside of the thickest part with a denticular angulation at the base of that emargination; tibia slender; the 1st and 2nd tarsal segment very broad and triangular form; claws appendiculate, inner branches separate.

♀: Underside of abdomen not concave and the 1st and 2nd tarsal segment not broad and moderate form.

Length (excl. rostrum): 2.3–2.5 mm.

Material examined. Holotype NIAST: GW- 1 ♂, Paektamsa, Mt. Seolak, 26. V. 1993, D.S. Ku; Allotype KNU: KB- 1 ♀, Mt. Juwang, 28. VII. 1984; Paratypes KNU: CB- 1 ♂, Mt. Sobaek, 10. V. 1985; CN- 1 ♂, Mt. Deokseung, 27. V. 1982; KB- 1 ♀, Mt. Juwang, 28. VII. 1984.

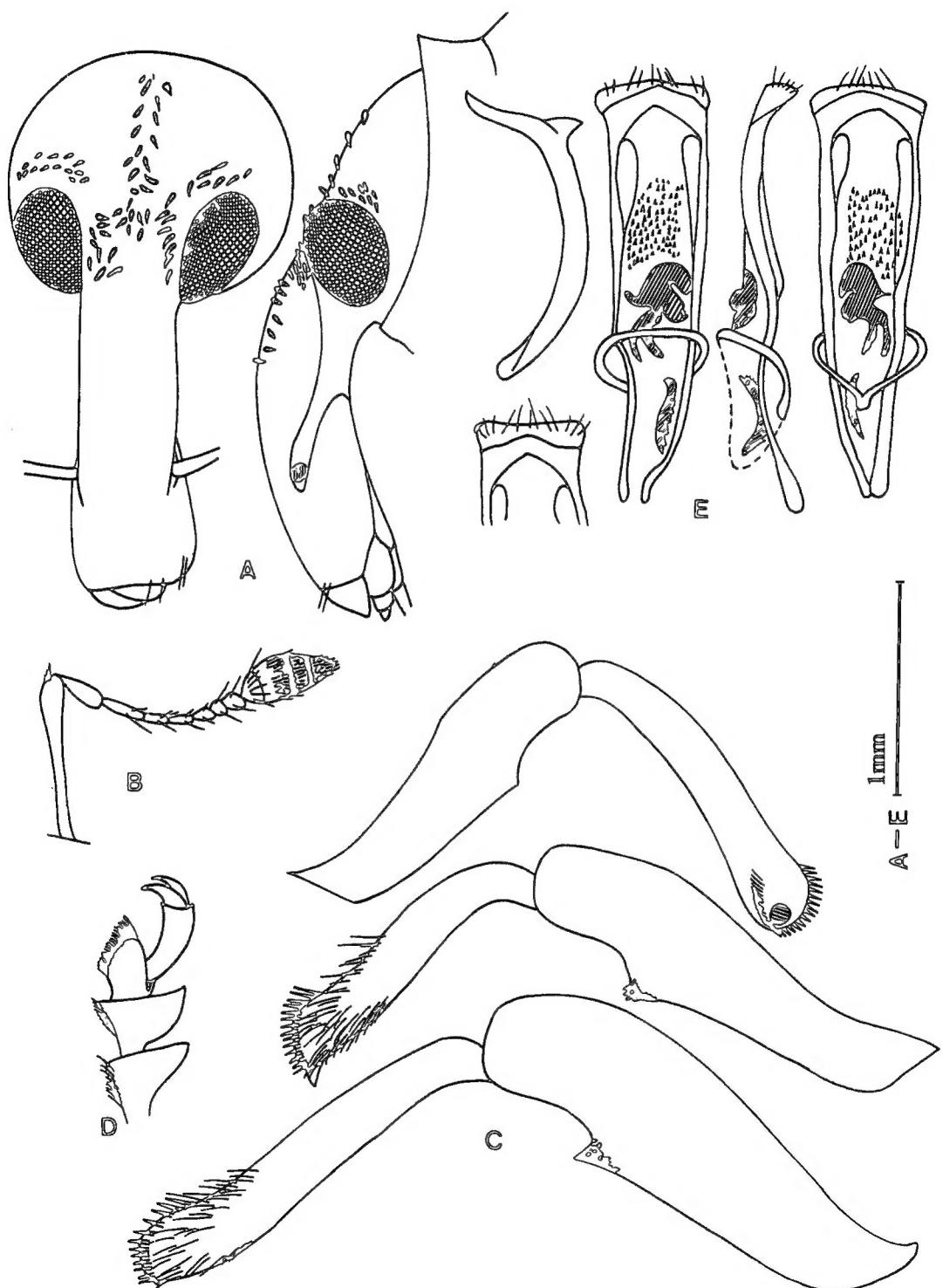


Fig. 4. *Cyphosenus moholeei* Hong et Egorov, sp. nov., ♂: A. Head and rostrum; B. Antennae; C. Legs; D. Tarsi; E. Genitalia.

Distribution. Korea (new record: Central, South).

Etymology. The species is named after Dr. Moon-Hong Lee, who encouraged me to study the classification of weevils.

Remarks. Holotype is preserved in NIAST and paratypes in Kyungbuk National University. The present new species is clearly distinguished from *Cyphosenus sasakii* Chûjo, 1959, by the combination of the following characters: Body size very small, the 3rd, 5th and 7th intervals more convex than the others and the 1st and 2nd tarsal segment of male more broad and triangular form.

Genus *Mogulones* Reitter, 1916

Mogulones Reitter, 1916, Fauna Germ. 5: 152.

Mogulones koreanus Korotyaev, 1994 콘이좁쌀바구미 (新稱)

Mogulones koreanus Korotyaev, 1994, Zoosystematica Rossica 3(1): 113. TL: Korea (Hamgyongnam-do).

Length (excl. rostrum): 3.1 mm.

Previous record. Korotyaev (1994): Holotype 1♂, South Hampyong Prov., Toxong-Omdonri hill, 1800m, 27. V. 1990 (S. V. Murzin).

Distribution. Korea (North).

Remarks. The type specimen was preserved in the Zoological Institute in St. Petersburg.

Genus *Nipporhynchus* Korotyaev, 1996

Nipporhynchus Korotyaev, 1996, Key to the insects of Russian Far East 3(3): 467. Type-species: *Ceuthorhynchus ibukianus* Hustache.

Nipporhynchus ibukianus (Hustache, 1916) 청날개바구미 (배추바구미)

Ceuthorhynchus ibukianus Hustache, 1916, Ann. Soc. Ent. Franc. 85: 143. TL: Japan (Nikko, Mt. Ibuki).

Ceuthorrhynchus ibukianus : Nakane, 1963, Icon. Ins. Jap. Col. nat. ed. 2 (Coleop.): 373, pl. 187; Lee et Kwon, 1974, Nature & Life 4: 48, pl. 5.

Length (excl. rostrum): 2.6–3.2 mm.

Material examined. NIAST: GG- 1♀, Suwon, 2. VI. 1958, U.H. Paek; 5♂, 3♀, Suwon, 24. V. 1961, U.H. Paek; 2♂, 1♀, Hwikyongdong, Seoul, 19. V. 1969, S.S. Song; 3♀, Anyang, 25. IV. 1973, J.C. Paek; 1♂, 2♀, Suwon, 27. IV. 1973, J.C. Paek; 1♂, Suwon, 16. V. 1973, J.C. Paek; 1♂, 2♀, Yoju, 25. V. 1973, K.R. Choi; 1♂, Banwol, 12. VI. 1974, J.C. Paek; 3♂, 1♀, Suwon, 26.

V. 1976, J.Y. Shim; 1♂, Suwon, 4. VI. 1976, Y.I. Lee; 1♂, 1♀, Yongin, 21. V. 1979, K.R. Choi; 1♂, Namhansansong, 20. IX. 1981, K. Jung; 1♀, Suwon, 18. V. 1984, S.B. Ahn; 7♂, 4♀, Suwon, 16. V. 1985, S.B. Ahn; 1♂, Seongnam, 23. IV. 1986, M.H. Lee; 1♂, Seongnam, 9. V. 1986, W.S. Cho; 1♂, Suwon, 2. VI. 1986, S.B. Ahn; 1♂, Suwon, 5. VI. 1986, S.B. Ahn; 1♂, Suwon, 17. VI. 1988, S.B. Ahn; 1♂, 1♀, Suwon, 13. III. 1989, K.J. Hong; 1♀, Jeongnam, Hwasong, 4. V. 1989, S.B. Ahn; 3♂, 4♀, Seongnam, 11. V. 1989, S.D. Lee; 1♂, 2♀, Suwon, 19. V. 1989, S.H. Lee; 1♂, 1♀, Suwon, 22. V. 1989, S.D. Lee; 2♀, Seongnam, 22. V. 1990, S.H. Lee; 1♀, Hwasong, 23. V. 1990, S.B. Ahn; 1♂, Suwon, ?, IX. 1992, S.B. Ahn; 1♀, Seongnam, 12. VI. 1996, K.J. Hong; 1♀, Suwon, 10. V. 1997, S.B. Ahn; 1♀, Pyongtaek, 23. V. 1997, K.J. Hong; GW- 1♀, Pyongchang, 9. IX. 1993, J.Y. Choi; 4♀, Chunchon, 15-16. V. 1996, D.S. Ku; 1♀, Chunchon, 10. VI. 1997, S.B. Ahn; 1♀, Hongchon, 11. VI. 1997, S.B. Ahn; CB- 5♂, 13♀, Chongju, 15. IV. 1987, S.B. Ahn; 1♀, Jungwon, 23. V. 1993, D.S. Ku; 2♂, 7♀, Jechon, 21. V. 1996, K.J. Hong; 2♂, 9♀, Chongwon, 25. X. 1996, S.B. Ahn; 1♂, Jinchon, 22. X. 1997, K.J. Hong; CN- 1♂, Yesan, 19. V. 1991, S.T. Kwon; 2♂, 2♀, Seochon, 2. IV. 1996, K.J. Hong; 1♀, Nonsan, 2. IV. 1996, K.J. Hong; 1♂, Boryong, 28. V. 1996, D.S. Ku; 1♂, Seosan, 22. IV. 1997, M.R. Lee; JN- 1♀, Shinan, 24. V. 1982, J.H. Yu; 1♂, 1♀, Kurye, 18. III. 1997, S.B. Ahn; KN- 1♂, Kimhae, 26. V. 1980; 3♂, 3♀, Changnyong, 23. IV. 1996, D.S. Ku; 1♀, Keojedo, 4. VI. 1997, K.J. Hong. SNU: GG- 1♂, Jangan Univ. Campus, Suwon, 21. VI. 1992. ANU: KB- 1♀, Andong Univ. Campus, Andong, 30. VIII. 1996. KNU: GG- 7exs., Mt. Wangbang, 30. V. 1976, S.M. Lee; Kwangreung, 14. V. 1982; JB- Mt. Mai, 11. V. 1980; KB- 2exs., Taegu, 19. V. 1976; Mt. Palkong, Taegu, 16. V. 1976; 5exs., Taegu, 24. V. 1968; 5exs., Mt. Palkong, Taegu, 24. X. 1960; Kyungbuk Univ. Campus, Taegu, 9. V. 1976; 20exs., Ansim, Taegu, 21. V. 1980; Mt. Palkong, Taegu, 23. V. 1981; Taegu, 7. VI. 1982; Taegu, 2. X. 1982; Taegu, 5. VI. 1982; Chilkog, 17. VI. 1984; KN- Tongdosa, 9. X. 1979; 3exs., Samnam, Ulsan, 24. V. 1980.

Previous record. Lee and Kwon (1974): JJ- 3exs., Manjanggul, 7. V. 1974; 1ex., Jungmun, 9. V. 1974.

Distribution. Korea (Central, South, Chejudo) and Japan (Honshu, Shikoku, Kyushu).

Biological notes. This species is the pest of cruciferous plants (*Brassica compestris*, *Raphanus sativus* etc.).

Genus *Cardipennis* Korotyaev, 1980

Cardipennis Korotyaev, 1980, Insects of Mongolia 7: 228. (subgenus). Type-species: *Cidnorrhinus objectus* Voss, 1968.

Key to the species of genus *Cardipennis* in Korea

1. Elytra with broad transverse band after middle part and its band broadened toward anterior on lateral sides *C. sulcithorax* Hustache
- Elytra with white patch just after scutellum and with pale scales on ending part of 1st interval

C. shaowuensis Voss*Cardipennis shaowuensis* Voss, 1958 한삼덩굴좁쌀바구미

Ceutorhynchus shaowuensis Voss, 1958, Decheniana Beihefte 5: 74. TL: China (Shaowu).

Length (excl. rostrum) : 2.7–3.0 mm.

Material examined. NIAST: GG- 1♂, Hwikyongdong, Seoul, 19. V. 1969, S.S. Song; 1♀, Ansong, 30. VII. 1970, S.S. Song; 1♂, Mt. Yogi, Suwon, 6. VII. 1994, D.S. Ku; 1♂, Koyang, 4. VII. 1996, K.J. Hong; 1♂, 1♀, Mt. Yogi, Suwon, 16. V. 1997, K.J. Hong; 1♂, Kanghwado, 27. V. 1997, K.J. Hong; GW- 1♀, Mt. Chiak, 23. VI. 1977, K.R. Choi; 1♂, 1♀, Chunchon, 25. V. 1993, D.S. Ku; 1♂, Kosong, 25. V. 1993, D.S. Ku; 1♀, Hwachon, 12. VI. 1996, J.Y. Choi; CB- 1♂, Danyang, 7. VI. 1979, K.R. Choi; 1♂, 2♀, Okchon, 22. V. 1993, D.S. Ku; 1♀, Koesan, 30. VI. 1997, D.S. Ku; JB- 6♂, 2♀, Mt. Naejang, 10. VI. 1975, K.R. Choi; KB- 1♂, 1♀, Andong, 28. V. 1993, D.S. Ku; 2♂, Bonghwa, 28. V. 1993, D.S. Ku; 1♂, 1♀, Yongchon, 29. V. 1993, D.S. Ku; 1♂, Kimchon, 2. VI. 1997, S.B. Ahn; 1♀, Sangju, 13. VIII. 1997, J.Y. Choi; KN- 1♂, Milyang, 30. V. 1997, J.Y. Choi; 1♂, Keojedo, 4. VI. 1997, K.J. Hong; JJ- 1♀, Daho, Cheju, 25. VII. 1997, S.B. Ahn; 1♂, Aewol, Bukcheju, 26. VII. 1997, K.J. Hong. SNU: JN- 1♂, Mt. Paekun, Kwangyang, 29. VI. 1990. KNU: CB- Mt. Wolak, 8. VIII. 1978; JN- 3exs., Yosu, 15. IX. 1974; Jindo, 18. VII. 1984; KB- Mt. Juwang, 6. VIII. 1975; Kyungbuk Univ. Campus, Taegu, 2. VII. 1976; 3exs., Mt. Palkong, Taegu, 18. VI. 1978; Mt. Hwanghak, 24. VII. 1978; Ansim, Taegu, 23. V. 1980; 5exs., Hayang, Kyongsan, 5. VII. 1980; Kyungbuk Univ. Campus, Taegu, 16. IX. 1981; Hayang, Kyongsan, 14. VII. 1984; 2exs., Mt. Palkong, Taegu, 1. VI. 1985; Taegu, 22. IV. 1989; Mt. Byongpung, 13. VIII. 1997; Mt. Palkong, Taegu, 29. VI. 1979; Mt. Palkong, Taegu, 6. IX. 1985; KN- Ulsan, 24. V. 1980; Masan, 7. VIII. 1982; JJ- 4exs., Seokuipo, 9. V. 1974; 2exs., Hakui, 11. V. 1974; 2exs., Seokuipo, 20. VI. 1976; 2exs., Jungmun, 12. VIII. 1984.

Previous record. Kwon and Lee (1986): Central, South, Chejudo.

Distribution. Korea (Central, South, Chejudo), Japan (Honshu, Shikoku, Kyushu), and China (Shaowu).

Biologicla notes. Adults were collected from *Humulus japonicus* Sieb. et Zucc.

Cardipennis sulcithorax Hustache, 1916 가슴골좁쌀바구미 (新稱)
(Fig. 5)

Ceutorhynchus sulcithorax Hustache, 1916, Ann. Soc. Ent. Fr. 85: 135. TL: Japan.

♂: Body oval form, black, antennae and tibia brown.

Head sparsely with truncated hairy brownish scales, reticulate punctuated, with a median keel to vertex; frons slightly concave, with ovate white scales in middle, broad and narrowing to the base of rostrum; rostrum slender, reaching the anterior margin of metasternum, sparsely clothed with truncated hairy brownish scales, parallel-sided, and weakly curved; antenna inserted into the basal 3/5 of rostrum; scape

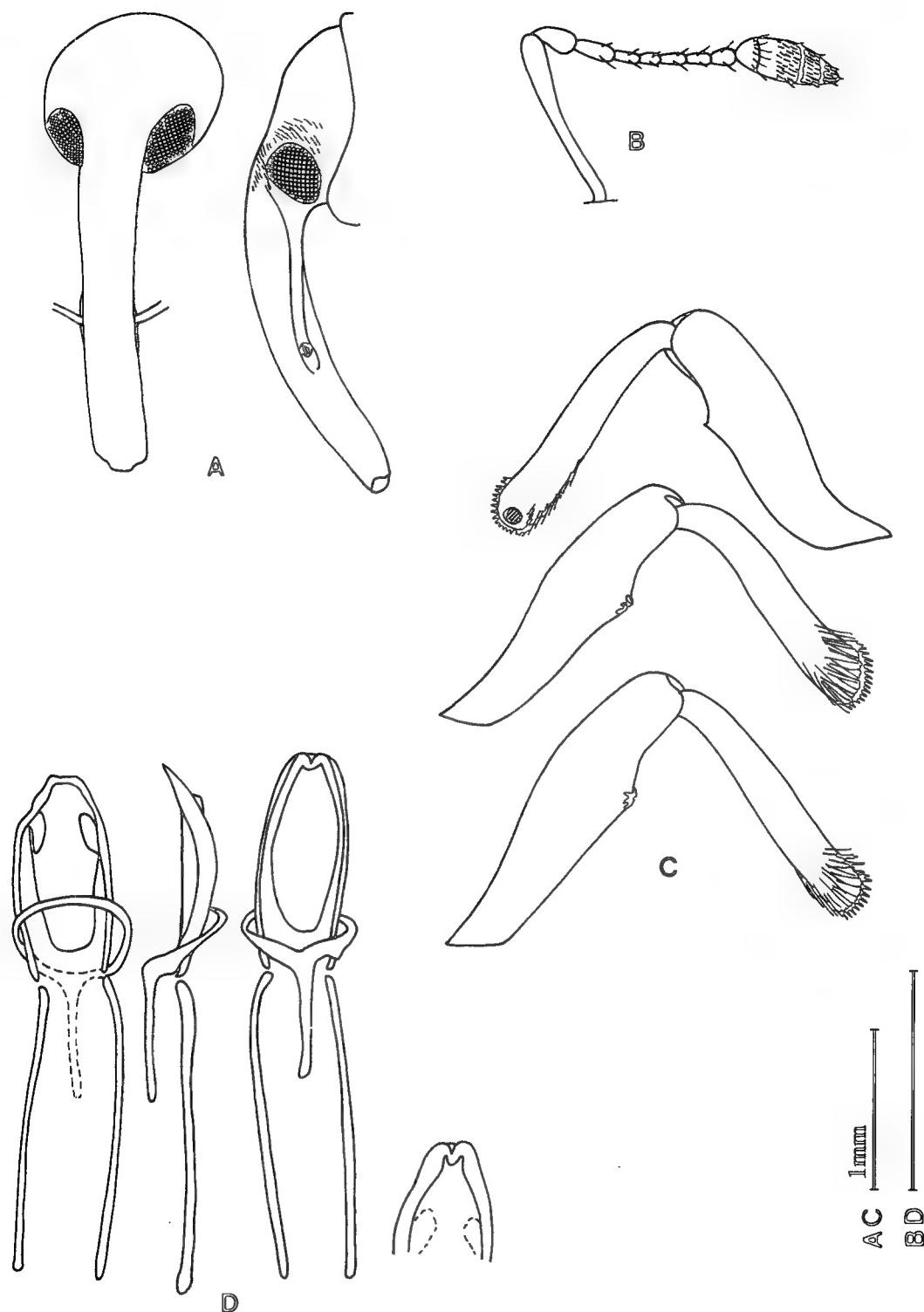


Fig. 5. *Cardipennis sulcithorax* Hustache, ♂ : A. Head and rostrum; B. Antennae; C. Legs; D. Genitalia.

longer than basal 5 funicular segments taken together, not reached to the front border of eye, with brown seta at apex; funicle 7 segments, 1st funicular segment with robust, as long as 2nd, 3rd segment shorter than 2nd, the other segments shorter; club spindle shape.

Pronotum sparsely clothed with truncated hairy brownish scales and with ovate white scales on median sulcus and lateral sides, lateral sides with small pyramidal projections, shorter than the broadest width, broadest the base, subapical constriction weak, anterior margin a little sinuate.

Scutellum small, black.

Elytra oval form, with ovate white scales on the base, scutellar patch, 1st interval, beyond middle part, lateral sides and subapical part of elytra, longer than wide, broadest the middle; punctured striae shallow; each interval flattened, much broader than striae, with two to four rows of truncated brown scales.

Underside of body : sternum and abdomen densely clothed with oval yellowish white scales; prosternum with bordering keels of prosternal canal, fore coxae separated narrower than the width of rostrum; 1st and 2nd abdominal segments slightly depressed on median portion, 5th abdominal segment depressed on median portion.

Legs elongate; femora a little slender, clothed with hairy yellowish white scales and femur with small tooth which covered with oval yellowish white scales on slightly emarginated portion; tibiae scarcely curvate and a little dilated toward apex, clothed with hairy yellowish white scales, anterior margin of corbel fringed with brownish bristles, tibiae without mucro; claws appendiculate, inner branches separated each other.

♀: 1st and 2nd abdominal segments convex on median portion, 5th abdominal segment not depressed on median portion.

Length (excl. rostrum): 2.5–2.8 mm.

Material examined. NIAST: GG- 1♀, Hwasong, 22. VII. 1988, S.S. Cho; 1♂, Yongin, 20. IX. 1988, S.B. Ahn; 1♂, Mt. Yogi, Suwon, 8. VI. 1993, D.S. Ku; 3♂, 3♀, Suwon, 7. II. 1994, J.J. Kim; 2♂, 1♀, Hwasong, 1. VI. 1994, D.S. Ku; 4♂, 10♀, Mt. Kwangkyo, Suwon, 11. IX. 1995, H.S. Lee; 1♂, Hwasong, 5. VI. 1996, K.J. Hong; 1♀, Seongnam, 12. VI. 1996, K.J. Hong; 2♂, 2♀, Yangju, 12. VI. 1996, J.Y. Choi; 1♂, Koyang, 4. VII. 1996, K.J. Hong; 1♂, Mt. Yogi, Suwon, 16. V. 1997, K.J. Hong; 1♀, Mt. Yogi, Suwon, 16. V. 1997, A.B. Egorov; 2♂, Mt. Suri, Banwol, 19. V. 1997, K.J. Hong; 1♂, Sakang, Hwasong, 21. V. 1997, K.J. Hong; 1♂, Suwon, 21. V. 1997, S.B. Ahn; 1♂, Mt. Yogi, Suwon, 26. V. 1997, K.J. Hong; 3♂, 4♀, Kanghwado, 27. V. 1997, K.J. Hong; 2♂, 1♀, Suwon, 23. IX. 1997, K.J. Hong; GW- 1♀, Yongwol, 24. V. 1993, D.S. Ku; 1♂, Hongchon, 24. V. 1993, D.S. Ku; 2♂, 1♀, Hwachon, 24–25. V. 1993, D.S. Ku; 23♂, 8♀, Kosong, 25–26. V. 1993, D.S. Ku; 1♀, Myongju, 27. V. 1993, D.S. Ku; 5♂, Kyongpodaes, Kangreung, 27. V. 1993, D.S. Ku; 9♂, 4♀, Donghae, 28. V. 1993, D.S. Ku; 1♀, Taebaek, 28. V. 1993, D.S. Ku; 1♂, 1♀, Samchok, 28. V. 1993. D.S. Ku; 13♂, 10♀, Hongchon, 11. VI. 1997, S.B. Ahn; CB- 2♂, 1♀, Okchon, 22. V. 1993, D.S. Ku; 1♂, 1♀, Jechon, 24. V. 1993, D.S. Ku; 2♂, 6♀, Chungju, 4. IX. 1997, M.J. Han; CN- 1♀, Asan, 16. IX. 1992, J.Y. Choi; 1♂, 1♀, Keumsan, 22. V. 1993, D.S. Ku; 1♂, 3♀, Puyo, 11. IX. 1996, K.J. Hong; 1♀, Kongju, 11. IX. 1996, K.J. Hong; 1♂, 3♀, Chonan, 18. V. 1997, S.B. Ahn; JB- 1♂, 6♀, Mt. Naejang, 10. VI. 1975, K.R. Choi; 1♂, 3♀, Jeongeub, 13. IX. 1996, M.R. Lee; 4♂, 6♀, Yosan, Iksan, 13. IX. 1996, S.B. Ahn; JN- 1♂, Changsong, 11. IX. 1996,

M.R. Lee; 1♀, Hwasun, 13. IX. 1996, M.R. Lee; KB- 1♀, Andong, 16. V. 1988, K.S. Lee; 1♂, 1♀, Yongju, 30-31. VIII. 1992; 1♂, 3♀, Andong, 28. V. 1993, D.S. Ku; 1♂, 2♀, Bonghwa, 28. V. 1993, D.S. Ku; 1♂, 2♀, Yongchon, 29. V. 1993, D.S. Ku; 1♂, Kimchon, 6. V. 1997, M.R. Lee; 2♂, Andong, 28. V. 1997, D.S. Ku; 1♀, Heuibangsa, Mt. Sobaek, 10. V. 1997, K.J. Hong; KN- 1♂, Jinju, 14. VII. 1993, D.S. Ku; 1♂, Sangri, Kosong, 15. VII. 1993, D.S. Ku; 1♀, Mt. Jebi, Haman, 25. VIII. 1993, D.S. Ku; 1♂, Sangri, Kosong, 3. VI. 1997, K.J. Hong; 1♂, Jinju, 3. VI. 1997, K.J. Hong; JJ- 4♀, Seongsan, Namcheju, 16. IX. 1996, S.B. Ahn; 1♂, Kuiwa, Bukcheju, 19. IX. 1996, S.B. Ahn; 1♂, 1♀, Daho, Cheju, 25. VIII. 1997, S.B. Ahn; 1♂, Daejeong, Namcheju, 26. VIII. 1997, K.J. Hong. SNU: GG- 1♂, Mt. Kwangkyo, Suwon, 26. V. 1990. ANU: KB- 1♀, Andong Univ. Campus, Andong, 30. VIII. 1996. KNU: GG- Mt. Suri, 2. VII. 1996; CB- Mt. Wolak, 8. VIII. 1978; 3exs., Mt. Sobaek, 10. V. 1985; CN- Mt. Deokseung, 23. V. 1982; KB- Mt. Palkong, Taegu, 24. VIII. 1980; Dansan, Yongpung, 23. V. 1984; Mt. Palkong, Taegu, 22. IV. 1985; 4exs., Mt. Palkong, Taegu, 19. VI. 1985; 6exs., Taegu, 22. IV. 1989; Mt. Palkong, Taegu, 22. IV. 1985; Mt. Palkong, Taegu, 1. VI. 1985; 5exs., Mt. Palkong, Taegu, 28. V. 1985; JJ- Naepodong, 9. X. 1990.

Distribution. Korea (new record: Central, South, Chejudo), and Japan (Honshu).

Genus *Ceutorhynchus* Germar, 1824

Ceutorhynchus Germar, 1824, Ins. Spec. nov. 1: 217. Type-species: *Curculio quercus* Fabricius.

Ceuthorhynchus Schönherr, 1826, Disp. meth. Curc.: 298. [error]

Iisorhynchus Schönherr, 1836, Gen. spec. Curc. 3(1): 631.

Ceuthorrhynchus Gemminger et Harold, 1871, Cat. Coleopt. hucusque descript. synonym. et syst. 8: 2603. [error]

Key to the species of genus *Ceutorhynchus* in Korea (excluded *Ceutorhynchus ussuricus* Korotyaev)

1. Shoulders rounded without any trace of humeral prominence *C. murzini* Korotyaev
- 8th interval convex, much broader than the others 2
2. Antennal funicle with 6 segments 3
- Antennal funicle with 7 segments 4
3. Leg reddish brown. 2nd segment of funicle longer than 3rd segment *C. albosuturalis* (Roelofs)
- Leg black. 2nd segment of funicle about as long as 3rd segment *C. asiaticus* Korotyaev
4. Dorsum naked, greenish or blackish metallic shine and with only hairy scales 5
- Dorsum covered with scales and without metallic shine 6
5. Claw simple. Elytra greenish metallic shine *C. diffusus* Hustache
- Claw appendiculate 6
6. Elytra blackish metallic shine. Body size small *C. dauricus* Korotyaev
- Elytra greenish metallic shine. Body size large *C. sulcicollis* (Paykull)

Ceuthorhynchus albosuturalis (Roelofs, 1875) comb. rev. 유채 줄쌀바구미

Ceuthorhynchidius albosuturalis Roelofs, 1875, Ann. Soc. Ent. Belg. 18: 178. TL: Japan.

Ceuthorhynchus albosuturalis: Faust, 1887, Deutsche Ent. Zeitschr. 31: 162.

Ceuthorrhynchus albosuturalis: Morimoto, 1957, Sci. Bull. Fac. Kyushu Univ. 16(1): 60.

Calosirus albosuturalis: Morimoto, 1962, Sci. Bull. Fac. Kyushu Univ. 19(2): 194.

Neosirocalus albosuturalis: Korotyaev, 1980, Insects of Mongolia 7: 244.

Ceuthorhynchidius albosuturalis: Morimoto et Lee, 1992, Esakia 32: 12. (Korea: Chejudo).

Length (excl. rostrum): 1.7–2.1 mm.

Material examined. NIAST: GG- 6♀, Hwakyongdong, Seoul, 8. V. 1969, S.S. Song; 4♀, Hwakyongdong, Seoul, 19. V. S.S. Song; 3♀, Hwakyongdong, Seoul, 23. V. 1969, S.S. Song; 1♂, Pulamdong, Seoul, 25. V. 1969, S.S. Song; 5♀, Ansong, 25. IV. 1970, S.S. Song; 2♂, Hwakyongdong, Seoul, 13. VII. 1970, S.S. Song; 1♀, Pulamdong, Seoul, 13. VI. 1971, S.S. Song; 7♀, Shiheung, 25. IV. 1973, J.C. Paek; 5♀, Yaju, 25. V. 1973, J.C. Paek; 2♀, Hwasong, 6. V. 1976, K.B. Um; 1♀, Suwon, 24. V. 1976, J.S. So; 7♀, Banwol, 9. V. 1977, S.C. Han; 4♂, 15♀, Suwon, 19. V. 1980, J.C. Paek; 3♀, Suwon, 18. IV. 1983, Y.I. Lee; 2♂, 9♀, Suwon, 25. IV. 1983, Y.I. Lee; 3♀, Suwon, 12. V. 1983, Y.I. Lee; 1♀, Suwon, 30. V. 1983, Y.I. Lee; 1♀, Suwon, 28. VI. 1983, J.C. Paek; 5♀, Suwon, 9. V. 1984, I.S. Kim; 1♂, 11♀, Suwon, 2. VII. 1984, I.S. Kim; 11♀, Suwon, 5. VII. 1984, I.S. Kim; 1♂, Suwon, 29. VIII. 1984, U.H. Paek; 1♀, Mt. Kwanak, 25. V. 1985, S.B. Ahn; 1♀, Suwon, 28. VI. 1985, H.K. Ko; 2♀, Suwon, 14. IV. 1986, J.H. Yu; 1♀, Suwon, 23. IV. 1986, W.S. Cho; 1♀, Suwon, 26. IV. 1986, J.H. Yu; 1♀, Suwon, 8. IV. 1987, S.B. Ahn; 1♀, Ansong, 15. V. 1987, S.B. Ahn; 1♀, Suwon, 17. IV. 1989, S.B. Ahn; 1♂, 1♀, Suwon, 20. IV. 1989, S.H. Lee; 1♀, Yongin, 21. V. 1989, S.D. Lee; 1♂, Mt. Suri, Banwol, 22. IV. 1989, S.D. Lee; 1♂, 7♀, Jeongnam, Hwasong, 4. V. 1989, S.B. Ahn; 1♀, Mt. Kwangkyo, Suwon, 26. IV. 1996, D.S. Ku; 2♀, Hwasong, 5. VI. 1996, K.J. Hong; 8♀, Mt. Yogi, Suwon, 11. IV. 1997, K.J. Hong; 5♂, 20♀, Mt. Yogi, Suwon, 15. IV. 1997, K.J. Hong; 2♂, 3♀, Mt. Yogi, Suwon, 16. V. 1997, K.J. Hong; 2♂, Suwon, 21. V. 1997, S.B. Ahn; 1♀, Banwol, 22. V. 1997, S.B. Ahn; 2♂, 1♀, Hwasong, 21. V. 1997, K.J. Hong; 1♀, Mt. Yogi, Suwon, 26. V. 1997, K.J. Hong; 10♂, 17♀, Kanghwado, 27. V. 1997, K.J. Hong; 6♂, 5♀, Suwon, 4. VII. 1997, K.J. Hong; GW- 2♀, Chunchon, 11. V. 1985, S.B. Ahn; 1♀, Hongchon, 24. V. 1993, D.S. Ku; 1♂, 13♀, Yongwol, 24. V. 1993, D.S. Ku; 1♂, 8♀, Kosong, 25–26. V. 1993, D.S. Ku; 1♂, 2♀, Hwachon, 25. V. 1993, D.S. Ku; 1♂, 4♀, Chunchon, 25. V. 1993, D.S. Ku; 3♀, Mt. Seolak, 27. V. 1993. D.S. Ku; 1♀, Kyongpodae, Kangreung, 27. V. 1993, D.S. Ku; 3♀, Unduryong, Hongchon, 27. V. 1993, D.S. Ku; 1♀, Pyongchang, 27. V. 1993, D.S. Ku; 4♀, Donghae, 28. V. 1993, D.S. Ku; 3♀, Taebaek, 28. V. 1993, D.S. Ku; 1♀, Myongju, 1. VI. 1993, D.S. Ku; 8♂, 7♀, Chunchon, 10. VI. 1997, S.B. Ahn; 1♂, 3♀, Hongchon, 11. VI. 1997, S.B. Ahn; 7♂, 4♀, Daegwanryong, Pyongchang, 11. VI. 1997, S.B. Ahn; CB- 1♂, 1♀, Okchon, 22. V. 1993, D.S. Ku; 3♂, 6♀, Koesan, 23. V. 1993, D.S. Ku; 3♂, 1♀, Eumsong, 26. VI. 1996, J.Y. Choi; 1♀, Koesan, 2. VII. 1996, D.S. Ku; 1♂, Chungju, 2. VII. 1996, D.S. Ku; 1♀, Jungwon, 8. V. 1997, K.J. Hong; 1♂, Danyang, 8. V. 1997, S.B. Ahn; 6♀, Danyang, 10–11. V. 1997. K.J.

Hong; CN- 1♀, Mt. Chilgap, Chongyang, 15. VI. 1992, D.S. Ku; 2♀, Kaedeoksa, Keumsan, 22. V. 1993, D.S. Ku; 1♀, Seosan, 22. IV. 1997, K.H. Lee; 1♀, Chonan, 18. V. 1997, S.B. Ahn; JN- 1♂, Hongdo, 23. VIII. 1975, K.R. Choi; 2♀, Mt. Mudeung, 17. IV. 1985, H.K. Ko; 6♂, 3♀, Naju, 18. IV. 1985, H.K. Ko; 1♂, 6♀, Muan, 18. IV. 1985, H.K. Ko; 1♀, Mokpo, 18. IV. 1985, H.K. Ko; KB- 2♂, 4♀, Bonghwa, 28. V. 1993, D.S. Ku; 5♀, Andong, 28. V. 1993, D.S. Ku; 3♂, 9♀, Chupungryong, Kimchon, 2. VI. 1997, K.J. Hong; 1♀, Kimchon, 6. V. 1997, M.R. Lee; 1♂, 2♀, Andong, 10. V. 1997, I.S. Kim; 2♂, 2♀, Andong, 28. V. 1997, D.S. Ku; 1♀, Kimchon, 6. VI. 1997, K.J. Hong; KN- 2♀, Pochungsa, Milyang, 16. V. 1993, D.S. Ku; 1♀, Jinju, 1. VI. 1993, D.S. Ku; 1♀, Haman, 20. VI. 1993, D.S. Ku; 1♂, Jinju, 14. VII. 1993, D.S. Ku; 2♀, Changryong, 19. VI. 1996, K.J. Hong; 1♂, 1♀, Milyang, 19. VI. 1996, K.J. Hong; 3♀, Hapchon; 2. VI. 1997, K.J. Hong; 1♀, Jinju, 3. VI. 1997, S.B. Ahn; 10♂, 8♀, Kosong, 3. VI. 1997, S.B. Ahn; 6♂, 12♀, Keojedo, 4. VI. 1997, K.J. Hong; 4♀, Jinju, 5. VI. 1997, K.J. Hong; 1♀, Keochang, 6. VI. 1997, K.J. Hong; JJ- 2♀, Cheju, 13. IV. 1983, D.J. Im; 1♀, Seongsan, Bukcheju, 28. VI. 1990, S.B. Ahn; 1♂, 1♀, Donneko, Seogwipo, 23. V. 1995, H.S. Lee; 9♀, Daejong, Cheju, 22-23. IV. 1996, J.Y. Choi; 1♀, Cheju, 18. IV. 1997, K.J. Hong. KNU: GG- 4exs., Mt. Wangbang, 30. V. 1976; 2exs., Kanghwado, 10. V. 1982; GW- Mt. Odae, 30. VII. 1976; Mt. Obong, 18. V. 1981; Mt. Odae, 17. IX. 1982; 16exs., Mt. Obong, 12. V. 1985; CB- Mt. Sobaek, 15. V. 1981; 3exs., Mt. Sobaek, 10. V. 1985; JB- 53exs., Mt. Mai, 11. V. 1980; KB- Kyungbuk Univ. Campus, Taegu, 9. V. 1976; 3exs., Taegu, 19. V. 1976; Seonsan, 3. V. 1980; 2exs., Ansim, Taegu, 21. V. 1980; 3exs., Ulreungdo, 26. V. 1981; Taegu, 6. IV. 1982; Mt. Palkong, Taegu, 29. IV. 1982; 4exs., Taegu, 5. VI. 1982; KN- 2exs., Mt. Keumjong, 1. VI. 1980; JJ- Hakui, 11. V. 1974.

Previous record. Morimoto and Lee (1992): JJ- 5exs., Kujwa, 19. V. 1990.

Distribution. Korea (Central, South, Ulreungdo, Chejudo), Japan (Hokkaido, Honshu, Shikoku, Kyushu), China, and Russia (Amur, Primor'ye, Sakhalin).

Biological notes. This species is the pest of cruciferous plants (*Capsella bursa-postoris*, *Nasturtium officinale*, *Cardamine flexuosa*, *Raphanus sativus*, *Brassica campestris*, *Brassica* spp.).

Ceutorhynchus asiaticus Korotyaev, 1997 아시아좁쌀바구미 (新稱)

Ceutorhynchus asiaticus Korotyaev, 1997, Entomol. Obozre. 76(2): 422. TL: Korea; Russia (Kuril Island); Mongolia; Japan (Hokkaido).

Length (excl. rostrum): 2.0-2.3 mm.

Material examined. NIAST: GW- 1♂, 1♀, Hongchon, 27. V. 1993, D.S. Ku; 2♂, Bonghwa, 28. V. 1993, D.S. Ku; 2♂, 1♀, Hongchon, 11. VI. 1997, K.J. Hong, 19♂, 15♀, Daegwanryong, Pyongchang, 11. VI. 1997, S.B. Ahn.

Previous record. Korotyaev (1997): NIAST: 1♂, Hongchon, 27. V. 1993, D.S. Ku.

Distribution. Korea (Central), Japan (Hokkaido), Mongolia, and Russia (Kuril).

Remarks. The type specimen were preserved in the Zoological Institute in St. Petersburg, Russia.

Ceutorhynchus dauricus Korotyaev, 1997 고마좁쌀바구미 (新稱)

Ceutorhynchus dauricus Korotyaev, 1997, Entomol. Obozre. 76(2): 417. TL: Korea (Pyongannam-do); Russia (Chita, Amur, Primor'ye); Mongolia.

Length (excl. rostrum): 1.6–2.1 mm.

Material examined. NIAST: GG- 2♂, 1♀, Suwon, 18. IV. 1983, Y.I. Lee; 1♀, Suwon, 27. IV. 1983, Y.I. Lee; 1♀, Suwon, 3. V. 1983, Y.I. Lee; 2♀, Mt. Yogi, Suwon, 15. IV. 1997, K.J. Hong; 1♂, Mt. Suri, Banwol, 19. V. 1997, K.J. Hong; CB- 2♀, Jechon, 24. V. 1993, D.S. Ku; CN- 1♂, Makogsa, Kongju, 4. V. 1997, K.J. Hong; KB- 1♀, Bonghwa, 28. V. 1993, D.S. Ku. KNU: GW- Mt. Seolak, 9. VIII. 1976; Mt. Obong, 18. V. 1981; KB- Seonsan, 3. V. 1980; Mt. Hwanghak, 10. VI. 1980; Mt. Palkong, Taegu, 23. V. 1981; 2exs., Mt. Palkong, Taegu, 29. IV. 1982; 6exs., Mt. Palkong, Taegu, 28. V. 1985; Mt. Seoneui, Chongdo, 26. V. 1997.

Previous record. Korotyaev(1997): 1♂, 4♀, Prov. South Phenan, Bong-ha ri, on the river Te-dong, 45 km E. of Pyongyang, 23. V. 1970, 1st Hungarian Zoological Expedition in Korea, No. 19 (Dr. S. Mahunka, Dr. H. Steinmann); NIAST, 1♂, Jechon, 24. V. 1993, D.S. Ku.

Distribution. Korea (North, Central, South), Mongolia, and Russia (Chita, Amur, Primor'ye).

Remarks. The type specimens were preserved in the Zoological Institute in St. Petersburg, Russia.

Ceutorhynchus diffusus (Hustache, 1930) 초록좁쌀바구미 (新稱)

(Fig. 6)

Ceutorhynchus diffusus Hustache, 1930, Col. Cat., Pars 113. *Ceuthorrhynchinae*: 58. (new name for *difficilis* Hustache). TL: Japan.

Ceutorhynchus difficilis Hustache (nec Schultze, 1898), 1916, Ann. Soc. Ent. Fr. 85: 142. TL: Japan.

♂: Body greenish blue metallic shine, in some specimens with brownish metallic shine, head, rostrum, antennae, pronotum and legs black.

Head with hairy brownish scales sparsely, distinctly punctuate, with a median keel to vertex; frons flattened, broad and narrowing to the base of rostrum; rostrum slender, reaching the anterior margin of metasternum, sparsely clothed with hairy brownish scales on basal half and only sparsely with minute scales on apical half, parallel-sided, and weakly curved; antenna inserted into the middle of rostrum; scape longer than basal 3 funicular segments taken together and brown seta at apex; funicle 7 segments, with 1st segment robust, a little longer than 2nd, 2nd segment longer than 3rd, and the other segments much shorter; club spindle shape.

Pronotum sparsely clothed with hairy brownish scales and with two or three ovate white scales on basal median depression, shorter than the broadest width, broadest the base, subapical constriction very weak, anterior margin entire.

Scutellum small, black, oval form.

Elytra oval form, without scutellar patch, longer than wide, broadest the middle; punctured striae

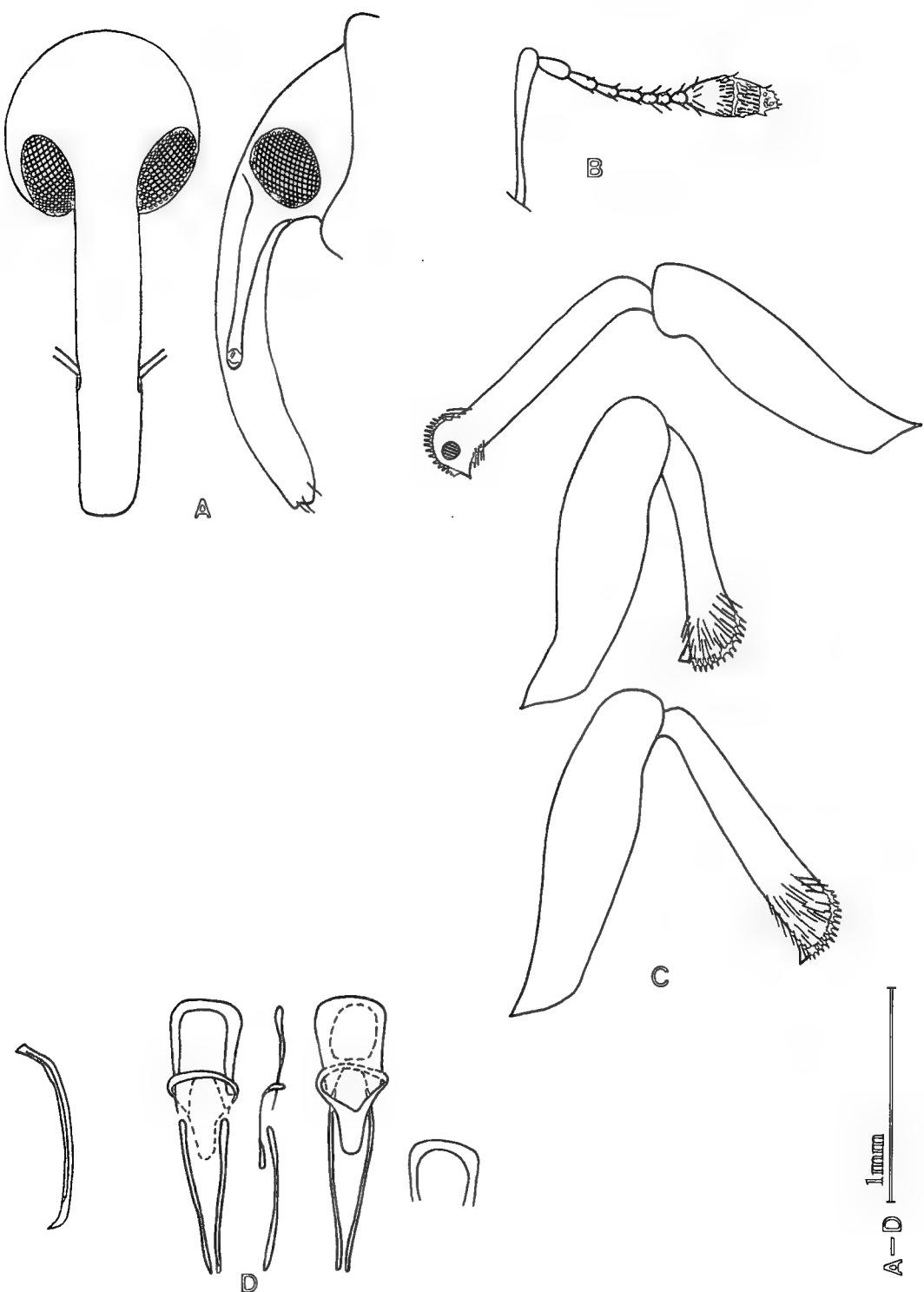


Fig. 6. *Ceutorhynchus diffusus* Hustache, ♂ : A. Head and rostrum; B. Antennae; C. Legs; D. Genitalia.

shallow, with a row of minute scales same color as in intervals; intervals with a row of hairy brown scales, flattened, much broader than striae; subapical swelling portion with pointed tubercles.

Underside of body : sternum densely clothed with oval yellowish white scales; prosternum flattened, fore coxae separated as wide as the rostrum; abdomen sparsely clothed with oval yellowish white scales, 1st and 2nd abdominal segments slightly depressed on median portion, 5th abdominal segment strongly depressed on median portion.

Legs elongate; femora slender, clothed with hairy yellowish white scales without tooth; tibiae scarcely curvate and dilated toward apex, clothed with hairy yellowish white scales, anterior margin of corbel fringed with brownish bristles, tibiae with robust and a triangular mucro; claws simple.

♀: Tibia without mucro; 1st abdominal segment slightly convex on median portion, 5th abdominal segment not depressed on median portion.

Length (excl. rostrum): 2.0–2.2 mm.

Material examined. NIAST: GG- 1♀, Suwon, 2. VI. 1959, U.H. Paek; 2♂, 2♀, Hwikkongdong, Seoul, 8. V. 1969, S.S. Song; 1♀, Kwangreung, 15. V. 1975, J.C. Paek; 1♀, Suwon, 19. V. 1980, J.C. Paek; 1♀, Suwon, 6. V. 1989, S.B. Ahn; 1♂, 1♀, Suwon, 21. VIII. 1996, K.J. Hong; 1♀, Suwon, 10. V. 1997, S.B. Ahn; 1♂, Mt. Yogi, Suwon, 19. V. 1997, K.J. Hong; 1♂, 3♀, Suwon, 21. V. 1997, S.B. Ahn; 2♀, Hwasong, 21. V. 1997, K.J. Hong; 2♂, 4♀, Kanghwado, 27. V. 1997, K.J. Hong; GW- 1♀, Chunchon, 11. V. 1985, S.B. Ahn; 3♂, 5♀, Yongwol, 24. V. 1993, D.S. Ku; 1♂, Hongchon, 24. V. 1993, D.S. Ku; 2♂, 4♀, Kosong, 25–26. V. 1993, D.S. Ku; 1♀, Donghae, 28. V. 1993, D.S. Ku; 1♀, Hongchon, 11. VI. 1997, M.J. Han; 1♂, Pyongchang, 12. VI. 1997, S.B. Ahn; CB- 2♀, Koesan, 23. V. 1993, D.S. Ku; CN- 1♂, 3♀, Puyo, 5. V. 1997, K.J. Hong; JN- 1♀, Hampyong, 14. V. 1996, J.Y. Choi; KB- 1♀, Sangju, 11. V. 1976, K.T. Park; 1♂, Andong, 28. V. 1993, D.S. Ku; 2♂, 2♀, Andong, 10. V. 1997, I.S. Kim; KN- 1♀, Keojedo, 4. VI. 1997, K.J. Hong; JJ- 1♀, Donneko, Seogwipo, 23. V. 1995, H.S. Lee. KNU: GG- 9exs., Mt. Wangbang, 30. V. 1976, S.M. Lee; 2exs., Kanghwado, 10. V. 1982; GW- 9exs., Mt. Obong, 12. V. 1985; JN- Yosu, 15. IX. 1874; KB- Kyungbuk Univ. Campus, Taegu, 9. V. 1976; 4exs., Ansim, Taegu, 23. V. 1980; Hayang, Kyongsan, 5. VI. 1982; Taegu, 5. VI. 1982; Mt. Palkong, Taegu, 1. VI. 1985; KN- Mt. Keumjong, 1. VI. 1980; JJ- 3exs., Manjanggul, 9. V. 1974; Jungmun, 9. V. 1974; 3exs., Jungmun, 11. V. 1982.

Distribution. Korea (new record: Central, South, Chejudo), and Japan (Honshu, Shikoku, Kyushu, Tsushima).

Ceuthorhynchus murzini Korotyaev, 1994 등근날개좁쌀바구미 (新稱)

Ceuthorhynchus murzini Korotyaev, 1994, Zoosystematica Rossica 3(1): 113. TL: Korea (Hamgyong-nam-do).

Length (excl. rostrum): 2.4 mm.

Previous record. Korotyaev (1994): Holotype and Paratype: 2♀, South Kampong Prov., Toxong-Omdonri hill, 1800m, 27. V. 1990 (S. V. Murzin).

Distribution. Korea (North).

Remarks. The type specimens were preserved in the Zoological Institute in St. Petersburg, Russia.

***Ceuthorhynchus sulcicollis* (Paykull, 1800) 쁘초록좀쌀바구미 (新稱)
(Fig. 7)**

Curculio sulcicollis Paykull, 1800, Fn. Suec. 3: 217. TL: Europe.

Ceuthorhynchus affinis Stephans, 1831, Ill. Brit. Ent. Mandib. 4: 235.

Coeliodes affinis (Stephans): Sch nherr, 1837, Gen. Sp. Curc. 4(1): 307.

Ceuthorhynchus cyanipennis Germar, 1824, Ins. Sp. nov. 1: 235.

Rhynchaenus cyanipennis (Germar): Gyllenhal, 1827, Ins. Suec. 1: 594.

Ceuthorhynchus cyanipennis var. *aeneipennis* Ch. Bris., 1883, Ann. Soc. Ent. Fr. (6) 3: 115. TL: Russia.

♂: Body greenish blue metallic shine, head, rostrum, antennae and legs black.

Head with hairy brownish scales sparsely, distinctly punctuate, with a median keel to vertex; frons nearly flattened, broad and narrowing to the base of rostrum; rostrum slender, reaching the posterior margin of metasternum, sparsely clothed with hairy brownish scales on basal half and only sparsely with minute scales on apical half, parallel-sided, and weakly curved; antenna inserted into the basal 3/5 of rostrum; scape much longer than basal 3 funicular segments taken together and brown seta at apex; funicle 7 segments, with 1st segment robust, a little longer than 2nd and 3rd, and the other segments much shorter; club spindle shape.

Pronotum rather sparsely clothed with hairy brownish scales and sparsely with ovate white scales on basal median depression, shorter than the broadest width, broadest the base, subapical constriction very weak, anterior margin entire.

Scutellum small, black, lanceolate.

Elytra oval form, with an scutellar patch on basal of 1st interval, which is composed of contiguous ovate white scales, longer than wide, broadest the middle; punctured striae shallow, with a row of minute scales same color as in intervals; the even intervals irregularly with a row of hairy brown scales, and the odd intervals irregularly with two rows of hairy brown scales, each interval flattened, much broader than striae; subapical swelling portion with pointed tubercles.

Underside of body: sternum densely clothed with oval yellowish white scales; prosternum with prosternal process, fore coxae separated narrower than the width of rostrum; 1st abdominal segment slightly depressed on median portion, 2nd to 5th abdominal segments sparsely clothed with oval yellowish white scales, 5th abdominal segment strongly depressed on median portion.

Legs elongate; femora a little slender, clothed with hairy yellowish white scales and mid and hind femur with small tooth which covered with oval yellowish white scales on slightly emarginated portion; tibiae scarcely curvate and a little dilated toward apex, clothed with hairy yellowish white scales, anterior margin of corbel fringed with brownish bristles, inner side of apex of mid and hind tibiae with robust and a triangular mucro; claws appendiculate, inner branches separated each other.

♀: Tibia without mucro; 1st abdominal segment slightly convex on median portion, 5th abdominal

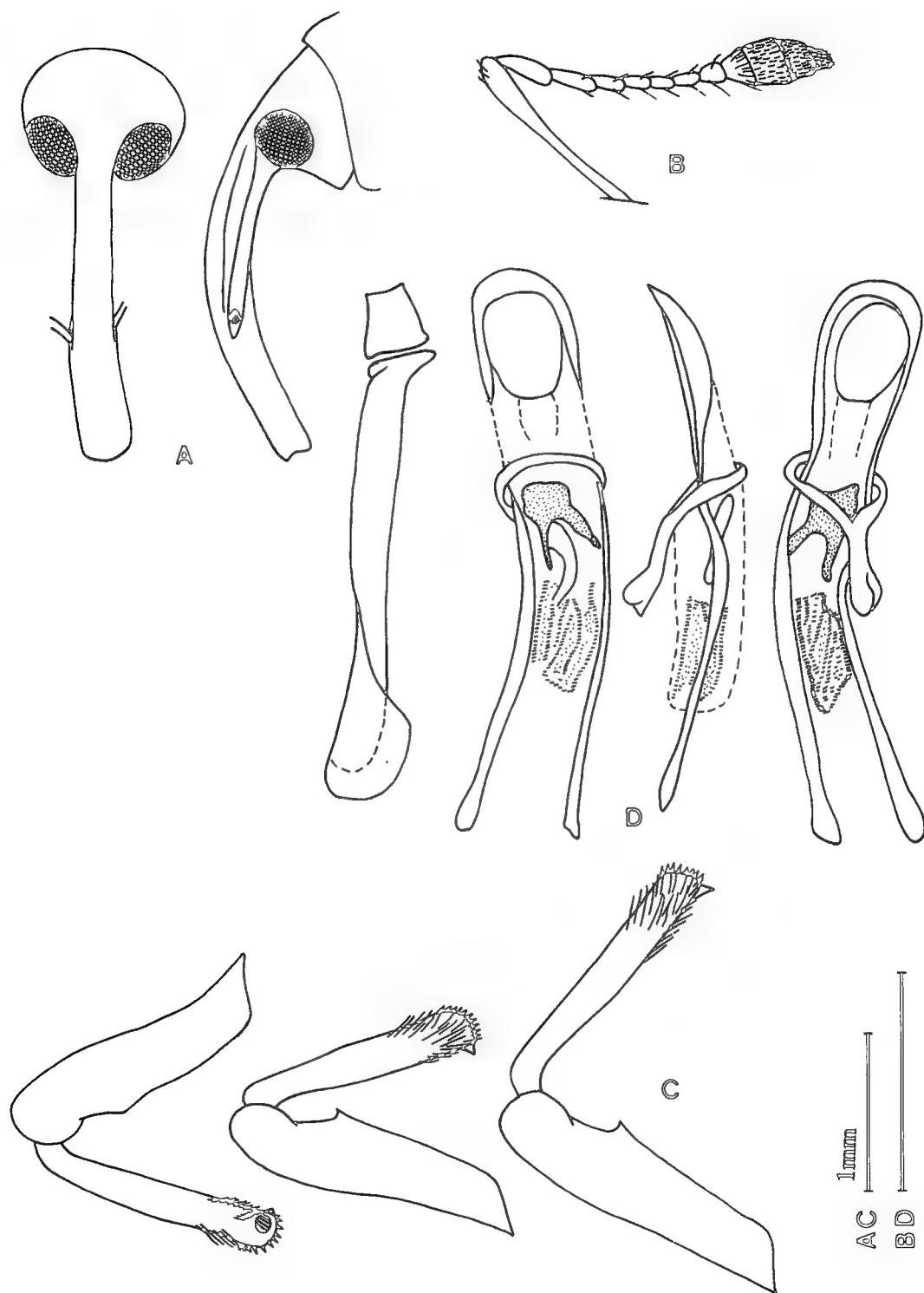


Fig. 7. *Ceuthorhynchus sulcicollis* (Paykull), ♂ : A. Head and rostrum; B. Antennae; C. Legs; D. Genitalia.

segment slightly depressed on median portion.

Length (excl. rostrum): 2.4–2.6 mm.

Material examined. NIAST: GW- 7♂, 8♀, Jinbu, Pyongchang, 27. V. 1993, D.S. Ku; 1♂, 3♀, Unduryong, Hongchon, 27. V. 1993, D.S. Ku; 1♂, Unduryong, Hongchon, 11. VI. 1997, S.B. Ahn; JB- 1♂, Mt. Naejang, 10. VI. 1975, K.R. Choi; KB- 2♀, Bonghwa, 28. V. 1993, D.S. Ku.

Distribution. Korea (new record: Central, South), Russia (Primor'ye), Caucasus, and Europe (Algeria, Holland).

Remarks. According to Colonnelli (1993), only one male specimen is in Paykull's collection of Naturhistoriska Riksmuseet, Stockholm, and it is here designated as lectotype.

***Ceuthorhynchus ussuricus* Korotyaev, 1997 우수리좁쌀바구미 (新稱)**

Ceuthorhynchus ussuricus Korotyaev, 1997, Entomol. Obozre. 76(2): 419. TL: Korea; Russia (Khabarovsk, Primor'ye).

Length (excl. rostrum): 1.4–1.5 mm.

Material examined. NIAST: GW- 1♂, Hongchon, 27. V. 1993, D. S. Ku.

Previous record. Korotyaev (1997): NIAST, 1♂, Hongchon, 27. V. 1993, D. S. Ku.

Distribution. Korea (Central) and Russia (Khabarovsk, Primor'ye).

Remarks. The type specimens were preserved in the Zoological Institute in St. Petersburg, Russia. This species was recorded from Korea by Korotyaev (1997), based on one specimen which requested for identify by NIAST. However, we could not examine this specimen in this study, because the NIAST had not send it back yet.

Subtribe Hypurina Reitter, 1912

Hypuridae Schultze, 1902, Deutsche Ent. Zeitschr.: 209.

Hypurina Reitter, 1912, Verh. Nat. Ver. Brünn 51: 64, 66.

Genus *Hypurus* Rey, 1882

Hypurus Rey, 1882, Rev. Entomol., Caen 1: 187. Type-species: *Ceuthorhynchus bertrandi* Perris.

***Hypurus bertrandi* (Perris, 1852) 쇠비름좁쌀바구미 (新稱) (Fig. 8)**

Ceuthorhynchus bertrandi Perris, 1852, Ann. Soc. Linn. Lyon 1850–1852 (1852): 183. TL: France.

Ceuthorhynchus carneus Perris, 1857, Ann. Soc. Linn. Lyon (n. s.) 4: 146. TL: Sicily.

Hypurus bertrandi var. *nigritulus* Vitale, 1905, Riv. Ital. 3: 207. TL: Sicily.

Hypurus bertrandti: [sic] Hayashi et al., 1994, The Coleoptera of Japan in Color 4: 315.

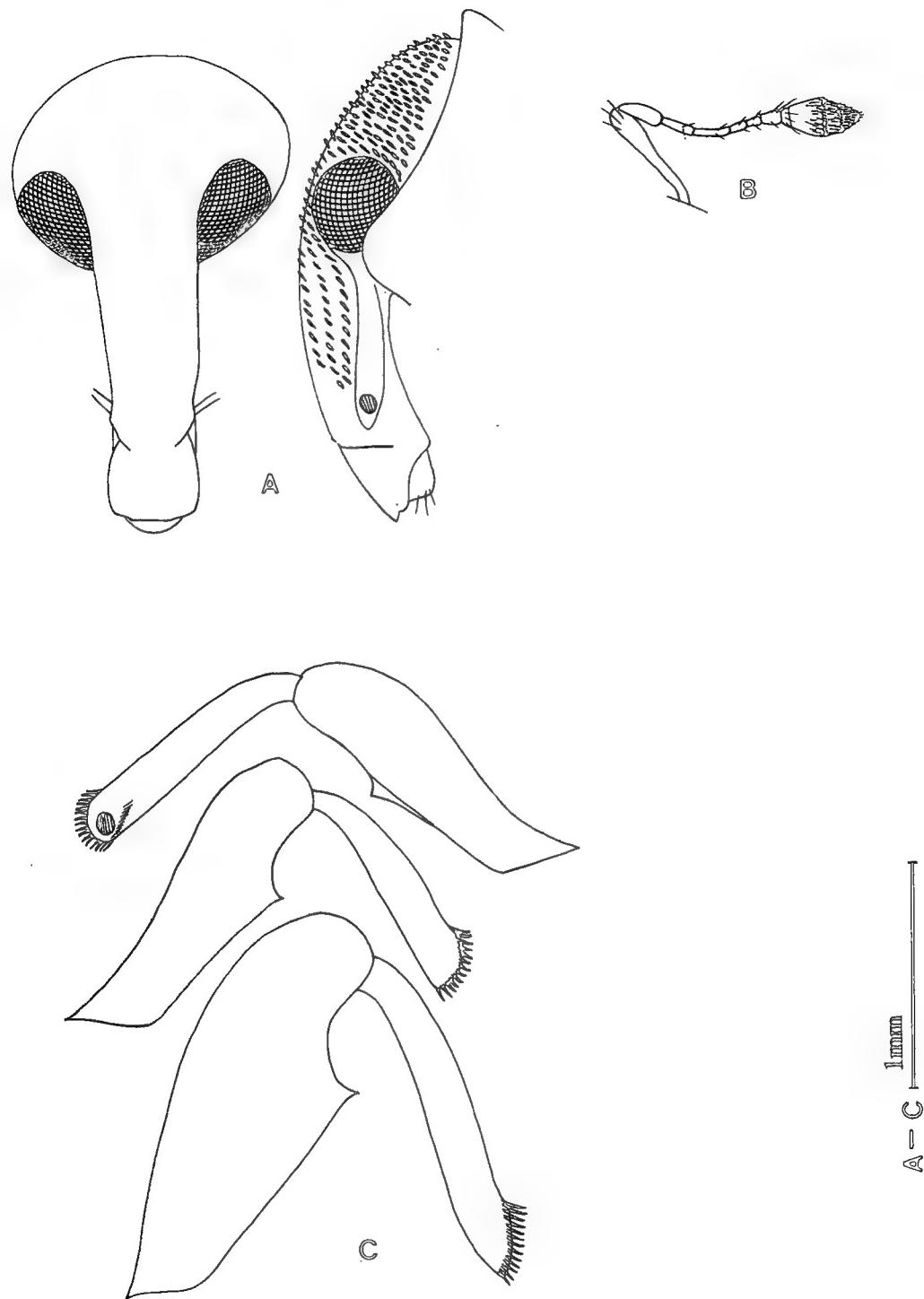


Fig. 8. *Hypurus bertrandi* (Perris), ♀: A. Head and rostrum; B. Antennae; C. Legs.

♀: Body reddish brown, angulate rhombic form, pronotum, base of elytra to middle of 3rd interval and lateral sides of elytra dark brown; covered with ovate yellowish white and dark scales.

Head strongly punctuated, covered with ovate yellowish white erected scales; frons between eyes weakly depressed, a little broader than the base of rostrum; rostrum robust, strongly punctured and shorter than pronotum, covered with ovate yellowish white erected scales on basal half and without scales on apical half, constricted before inserted antenna; antenna inserted into apical 1/3 of rostrum; scape not extended to eye, longer than the basal 2 funicular segments taken together; funicle 6 segments, 1st segment robust, 1st to 3rd segments same length, 4th to 6th segments half length of 3rd to each other; club spindle shape, 1st segment conicile, 2nd segment broad and longer than the next 2 segments taken together.

Pronotum strongly punctured, broadest on middle part, narrowed toward anterior, covered with ovate dark brown scales on median area and with ovate yellowish brown scales on lateral sides, and scattered with ovate gray scales to sulcus before scutellum and median of anterior margin, with triangulate corn shaped projections on the middle of lateral sides.

Scutellum black, small.

Elytra broadest just behind shoulder, a little convex after middle part of elytra; punctured striae clearly strong; each interval covered with 2-3 rows of scales; apex of elytra pointed and opened like \wedge -shape.

Procoxae broadly separated; prosternal canal bordered with keels; abdomen covered with ovate gray scales, 1st and 2nd abdominal segments 2 times as long as 3rd and 4th segments, 5th segment deeply depressed on median, longer than 4th segment.

Femora with strong tooth, hind femora 1.5 times as broad as anteriors; tibia almost straight, corbel fringed with dark brown bristles, without mucro; claws simple.

♂: Unexamined.

Length (excl. rostrum): 2.4 mm.

Material examined. NIAST: JJ- 1♀, Dongheung, Seoguipo, 27. VIII. 1997, D. S. Ku.

Distribution. Korea (new record: Chejudo), Japan (Honshu, Kyushu, Ryukyu), Europe, N. America (California), Puerto Rico, and Hawaii.

Biological notes. Adults were found on *Protulaca* spp. (Morimoto, 1960).

Subtribe Mecysmoderina

Genus *Mecysmoderes* Schönherr, 1837

Mecysmoderes Schönherr, 1837, Gen. Sp. Curc. 4(1): 596. Type-species: *Mecysmoderes euglyptus* Gyllenhal.

Coeliosomus Motschulsky, 1858, Etud. Ent. 7: 70. Type-species: *Coeliosomus nigrorufus* Motschulsky, 1858.

Belonnotus Schultze, 1899, Deutsche Ent. Zeitschr.: 187. Type-species: *Belonnotus tricarinatus* Schultze, 1899.

Mecysmoderes nigrinus Hong et Woo, sp. nov. 뾰족가슴좁쌀바구미 (新稱)
(Fig. 9)

♂: Body black, apical portion of rostrum, antenna and claws brown.

Head sparsely with hairy brownish scales, distinctly reticulate, with a median keel to vertex; frons slightly depressed, broad and narrowing to the base of rostrum; rostrum rather stout, not reaching the posterior margin of metasternum, sparsely clothed with hairy brownish scales on basal half and only sparsely with minute scales on apical half, parallel sided, and weakly curved; antennae inserted into a little before the middle of rostrum; scape about as long as basal 3 funicular segments taken together and brown seta at apex; funicle 6 segments, with 1st segment robust, subequal in length to 2nd and 3rd, and the other segments much shorter; club spindle shape.

Pronotum rather densely clothed with hairy brownish scales, about 3/4 times as long as the broadest width, broadest just before the base, subapical constriction weak, anterior margin sinuate at middle; pronotal process short; dorsum distinctly reticulate, and rather deep subapical median depression.

Scutellum not visible because of covering with pronotal process.

Elytra subcordiform, with an scutellar patch on basal of 1st interval, which is composed of contiguous and obliquely raised small oval yellow scales, being continued behind the scutellar patch as two rows of brownish truncated scales, the other intervals with a row of, partly two rows of brownish truncated scales, a little longer than wide, broadest just behind shoulders, the sides gently narrowed posteriorly; punctured striae deep, with a row of minute scales same color as in intervals; intervals weakly carinate, much broader than striae, each with a row of setigerous obtuse projections.

Underside of body : sternum and abdomen segments densely clothed with oval yellowish white scales; prosternum flat, fore coxae separated as wide as rostrum, mesosternum excavated between middle coxae, metasternum slightly impressed at middle to receive apex of rostrum, 1st and 2nd abdominal segments much slightly depressed on median portion, 5th abdominal segments slightly depressed on median portion.

Legs elongate; femora clothed with hairy brownish scales; tibiae scarcely curvate and rather strongly dilated toward apex, clothed with hairy brownish scales, anterior margin of corbel fringed with brownish bristles, middle tibiae with a robust and triangular mucro; claws appendiculate, inner branches fused each other.

♀: Very similar to male, differing as follows; rostrum slender and longer, reaching the middle of 1st abdominal segment; antennae inserted into about basal 2/5; tibia without mucro; 1st and 2nd abdominal segments convex on median portion, 5th abdominal segment not depressed on median portion.

Length (excl. rostrum): 2.0–2.2 mm.

Material examined. Holotype NIAST: GG- 1♂, Mt. Chilbo, Suwon, 10. IV. 1998, S.W. Park, collected on *Rhododendron mucronulatum* Turcz.; Allotype NIAST: 1♀, same data as holotype; Paratypes NIAST: 1♀, same data as holotype. KNU: CN- 2♂, Mt. Deokseung, 27. V. 1982; JB- 1♂, 1♀, Mt. Mai, 11. V. 1980; KB- 2♂, Mt. Palkong, Taegu, 24. VIII. 1980; 2♂, Mt. Palkong, Taegu, 23. V. 1981; 2♀, Mt. Palkong, Taegu, 26. V. 1985; 1♀, Mt. Palkong, Taegu, 29. V. 1985; KN- 1♂, Mt. Jiri, 27. V. 1976.

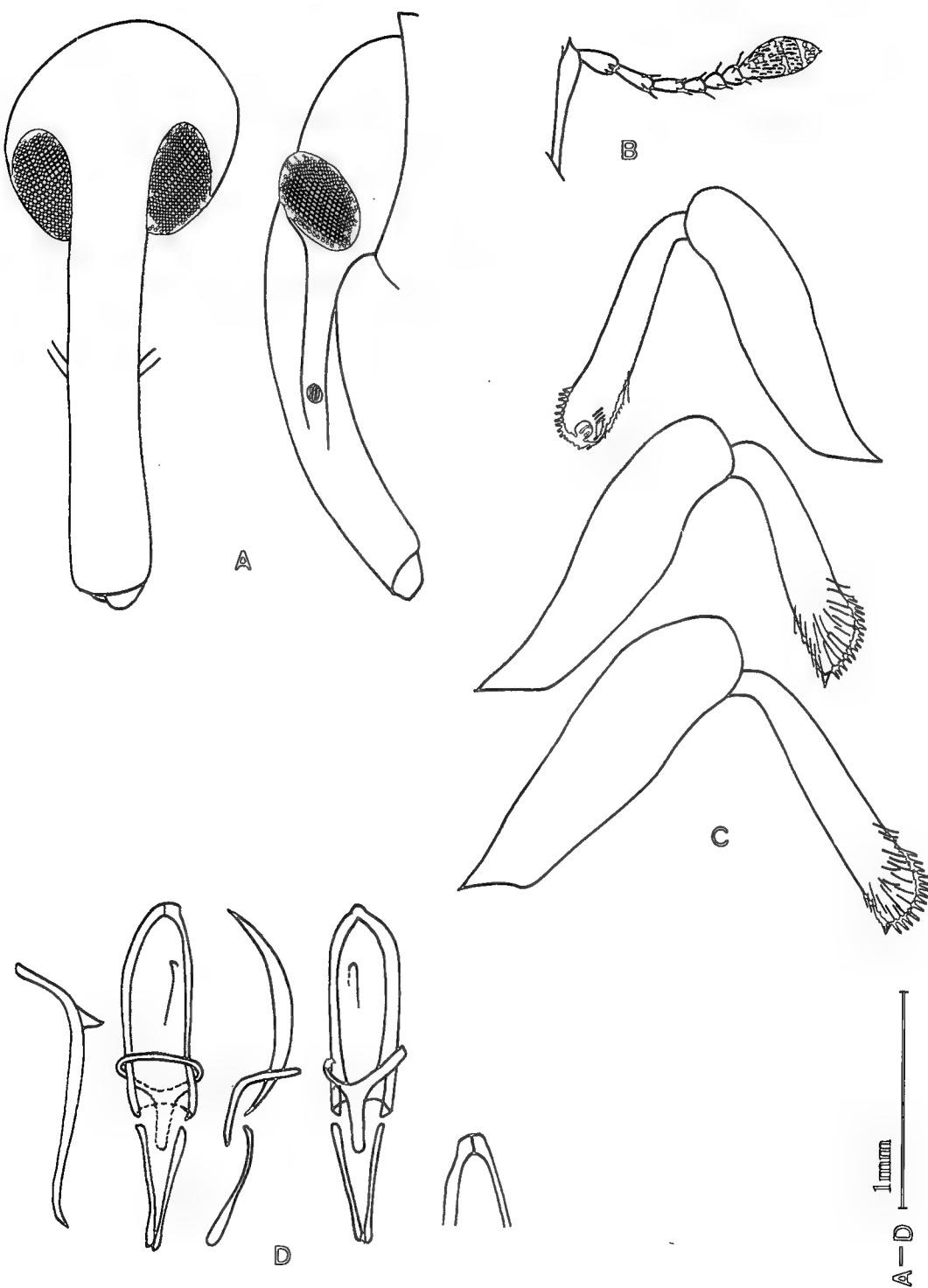


Fig. 9. *Mecysmoderes nigrinus* Hong et Woo, sp. nov., ♂: A. Head and rostrum; B. Antennae; C. Legs; D. Genitalia.

Distribution. Korea (new record: Central, South).

Biological notes. This species was collected on *Rhododendron mucronulatum* Turcz.

Remarks. This new species is similar to *Mecysmoderes brevicarinatus* Hustache, but is different from the latter in body color, antennal funicle and claws.

Tribe Orobittini Bedel, 1882

Orobittini Bedel, 1882, Ann. Soc. Ent. Fr. (6) 2: 156.

Orobitisidae Schultze, 1902, Deutsche Ent. Zeitschr.: 226.

Orobitidae Pierce, 1919, Proc. Ent. Soc. Washington 21: 715.

Orobitina Aurivillus, 1924, Svensk. Insekt. 9: 115.

Genus *Orobitis* Germar, 1824

Orobitis Germar, 1824, Ins. Spec. nov. 1: 242. Type-species: *Curculio cyaneus* Linnaeus, 1758.

Orobitis apicalis Kôno, 1935 알좁쌀바구미 (新稱)

(Fig. 10)

Orobitis apicalis Kôno, 1935, Ins. Mats. 10: 60. TL: Kuril Islands (Iturup).

♂: Body dark metallic luster, oval form, apex of elytra reddish brown to dark brown, antenna, tibia and tarsi dark brown, covered with sparsely ovate white scales.

Head closely wrinkled punctured; frons between eyes clearly narrower than the base of rostrum; rostrum longer than pronotum, slender, weakly curved, gradually increasing the thickness towards the inserted point of antenna and then, decreasing towards the apex of rostrum, dorsum with a fine median keel; antenna inserted into the basal one-third of rostrum; scape as long as the basal 2 funicular segments taken together; funicle 7 segments, 1st segment of funicle robust, as long as the next 2 segments of funicle taken together, 2nd and 3rd segments almost twice as long as wide, 4th segment a little shorter than the 3rd segment, 5th segment shorter than the 3rd segment, 7th segment shorter than wide, each segment with several long hairs; club spindle-shape, 3 segments, each segment almost same length.

Pronotum much wider than long, gradually decreasing the thickness towards the anterior like cone-shaped, with uniformly fine punctures, basal part of before scutellum with clearly ovate white scales.

Scutellum large, oval form.

Elytra strong arch-shaped, behind scutellum with clearly ovate white scales; punctured striae distinct; interval flat and broad, each interval with sparsely minute punctures.

Underside of body, legs and pygidium with densely gray to brown scales; procoxae broadly separated; prosternal canal bordered with keels; abdomen concave, 1st to 4th abdominal segments almost same length, 5th segment very long.

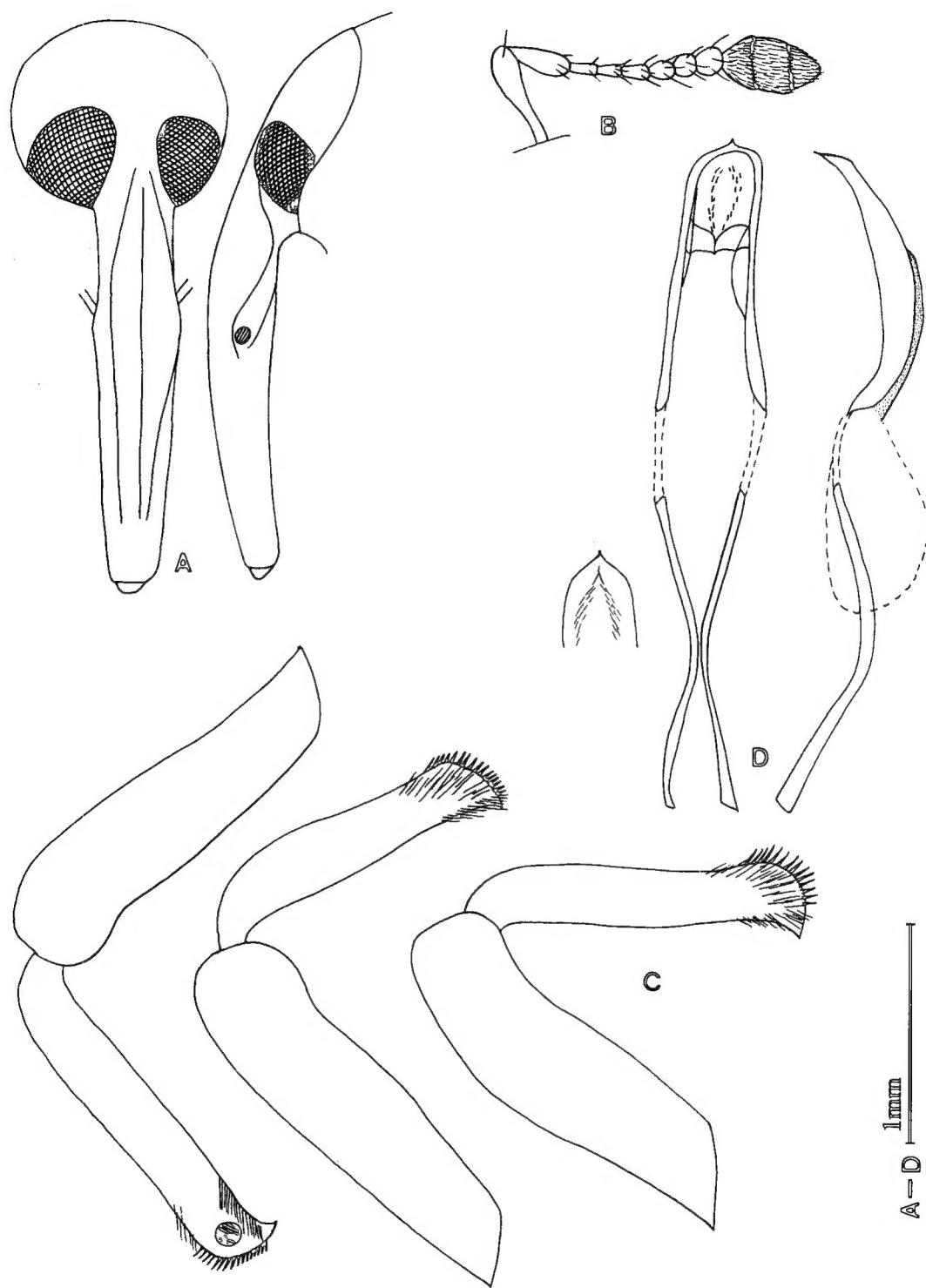


Fig. 10. *Orobites apicalis* Kono, ♂ : A. Head and rostrum; B. Antennae; C. Legs; D. Genitalia.

Hindcoxa contiguous to the 2nd segment of abdomen; femora very broad, without tooth; tibia almost straight, corbel fringed with black bristles, inner sides of apex with mucro; claws appendiculate, inner branches fused each other.

♀: Inner side of apex of tibia without mucro.

Length (excl. rostrum): 2.0–2.4 mm.

Material examined. NIAST: GW- 1♀, Daegwanryong, Pyongchang, 11. VI. 1997, S.B. Ahn; 1♂, Daegwanryong, Pyongchang, 25. VII. 1997, K.J. Hong.

Distribution. Korea (new record: Central), Japan (Hokkaido), and Russia (Kuril).

Biological notes. Adults were found on *Viola* spp. (Hayashi et al., 1994).

REFERENCES

- Anonymous. 1994. *Check list of insects from Korea.* 744pp. The Entomological Society of Korea & Korean Society of Applied Entomology.
- Choi, K.M., M.H. Lee, W.S. Cho, S.B. Ahn, and S.H. Lee. 1990. *Color atlas for ecology and control of insect pests of vegetable crops.* 224pp. Agricultural Sciences Institute, Rural Development Administration.
- Chūjō, M. 1959. Descriptions of two new species of the Genus *Cyphosenus* Schultze from Japan (Coleoptera : Curculionidae—Ceuthorrhynchinae). *Trans. Shikoku Ent. Soc.* 6(4): 49–54.
- Colonelli, E. 1979. Osservazioni sulla nomenclatura e sulla posizione sistematica di alcune entità olartiche di Ceuthorrhynchinae (Coleoptera, Curculionidae). *Fragmenta Entomologica* 15(1): 209–232.
- Colonelli, E. 1993. The Ceuthorrhynchinae types of I. C. Fabricius and G. von Paykull (Coleoptera: Curculionidae). *Koleopterologische Rundschau* 63: 299–310.
- Dalla Torre, K.W. and A. Hustache. 1930. Curculionidae: Ceuthorrhynchinae. *Coleopterorum Catalogus*, Pars 113: 1–150.
- Egorov, A.B. 1976. A Review of the Fauna of Weevils (Coleoptera, Curculionidae) of Primorye Territory. *Entomol. Obozre.* 55(4): 826–841.
- Egorov, A.B., V.V. Zherichin and B.A. Koromjaev. 1996. 112. Curculionidae. in *Key to the insects of Russian Far East.* Vol. III. Coleoptera. Pt. 3. Vladivostok, Dal'nauka. p.431–516.
- Hayashi, M., K. Morimoto and S. Kimoto. 1994. *The Coleoptera of Japan in Color.* Vol. IV. 3rd ed. 438pp. Hoikusha Publishing Co., Ltd., Japan.
- Hirashima, Y. et al. 1989. *A Checklist of Japanese Insects.* Vol. I. 540pp. Entomological Laboratory, Faculty of Agriculture, Kyushu University.
- Hustache, A. 1916. Synopsis des Ceuthorrhynchini du Japon. *Ann. Soc. ent. Fr.* 85: 107–144.
- Hustache, A. 1924. Nouveaux *Mecysmoderes* [Col. Curculionidae]. *Bull. Soc. ent. Fr.*: 57–61.
- Kōno, H. 1935. Die Curculioniden aus den Kurilen II. *Ins. Mat.* 10(1/2): 52–63.
- Korotyaev, B.A. 1980. Materials to the Knowledge of Ceuthorrhynchinae (Coleoptera, Curculionidae) of Mongolia and the USSR. *Insects of Mongolia* 7: 107–282.
- Korotyaev, B.A. 1981. New and Little-known Weevils of the Subfamily Ceuthorrhynchinae (Coleoptera, Curculionidae) from the Palearctic, Indo-Malayan, and Australian Region. *Entomol. Obozre.* 60: 126–159.
- Korotyaev, B.A. 1994. New weevils of the subfamily Ceuthorrhynchinae from the Far East (Coleoptera: Curculionidae). *Zoosyst. Rossica* 3: 111–114.
- Korotyaev, B.A. 1997. Material on weevils of the subfamily Ceuthorrhynchinae (Coleoptera, Curculionidae) of

- Palaearctic. *Entomol. Obozre.* 76(2): 378–423.
- Kwon, Y.J and S.M. Lee. 1986. Check List of Weevils from Korea. (Coleoptera : Curculionidea). *Insecta Koreana* 6: 57–89.
- Lee, C.E. and Y.J. Kwon. 1974. Coleoptera of Quelpart Island (Cheju-do) (Part I). *Nature & Life* 4: 27–52.
- Morimoto, K. 1957. Studies on Japanese species of the Genus *Ceuthorrhynchus* injurious to the Curciferous plants (Col. Curculionidae). *Sci. Bull. Fac. Kyushu Univ.* 16(1): 59–74, pls 5–8.
- Morimoto, K. 1960. [New records of the Curculionidae (Coleoptera) from Japan]. *Kontyû* 28: 183. [in Japanese]
- Morimoto, K. 1962a. Provisional check list of the family Curculionidae of Japan I. *Sci. Bull. Fac. Kyushu Univ.* 19(2): 183–217.
- Morimoto, K. 1962c. Key to families, subfamilies, tribes and genera of the superfamily Curculionidea of Japan excluding Scolytidae, Platypodidae and Cossoninae. *J. Fac. Agri. Kyushu Univ.* 12(1): 21–66.
- Paik, J.C. et al. 1995. *Insects of Chejudo.* p. 428–434. Cheju Folklore & Natural History Museum.
- Pajni, H.R. and S.K. Kohli. 1982. Taxonomic studies on Indian Ceutorhynchinae (Coleoptera: Curculionidae). Tribe Mecysmoderini. *Oriental Insects* 16(3): 337–372.
- Reitter, E. 1912. Bestimmungs-Schlüssel für die Unterfamilien, Tribus und Gattungen der Curculionidae. *Bestimmungs-Tabellen der europäischen Coleopteren* 68: 1–90.
- Roelofs, W. 1875. Curculionides Recueillis au Japon par M.G. Lewis. *Ann. Soc. Entom. Belg.* 18: 149–193, pl.1–3.
- Voss, E. 1958. Ein Beitrag zur Kenntnis der Curculioniden im Grenzgebiet der Orientalischen zur Paläarktischen Region (Col., Curc.). *Decheniana Beihefte* 5: 1–139.
- Wu, C.F. 1937. *Catalogus Insectorum Sinensium.* Vol. III. The Fan Memorial Institute of the Biology, Peiping, China. (ref. p.1148–1150)
- Zherichin, V.V. and A.B. Egorov. 1990. *Weevils of the Far East USSR.* 164pp. Vladivostok.
- Zimmerman, E.C. 1956. The Protulaca leafmining weevil, *Hypurus bertrandi*, in Hawaii (Coleoptera: Curculionidae: Ceutorhynchinae). *Annals Entomological Society of America* 50: 221–222.

韓國產 좁쌀바구미亞科 (딱정벌레目, 바구미科)의 分類學的 研究
II. Coeliolina, Ceutorhynchina, Hypurina, Mecysmoderina亞族
및 Oribitini族

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韓國產 바구미科의 좁쌀바구미亞科에 속하는 Coeliolina亞族, Ceutorhynchina亞族, Hypurina亞族, Mecysmoderina亞族 및 Oribitini族을 정리한 결과 20種이 밝혀졌으며, 그 중 세모발좁쌀바구미 (新稱), Cyphosenus moholeei sp. nov. 와 뾰족가슴좁쌀바구미 (新稱), Mecysmoderes nigrinus sp. nov. 2種을 新種으로, 갈색좁쌀바구미 (新稱), Coeliodes brunneus Hustache; 띠갈색좁쌀바구미 (新稱), Coeliodes nakanoensis Hustache; 흑좁쌀바구미 (新稱), Phytobiomorphus bifasciatus Voss; 가슴골좁쌀바구미 (新稱), Cardipennis sulcithorax Hustache; 초록좁쌀바구미 (新稱), Ceutorhynchus diffusus (Hustache); 큰초록좁쌀바구미 (新稱), Ceutorhynchus sulcicollis (Paykull), 쇠비름좁쌀바구미 (新稱), Hypurus bertrandi (Perris); 알좁쌀바구미 (新稱), Oribitis apicalis Kôno 8種을 韓國未記錄種으로 보고하며, 이들에 대한 성충, 생식기의 그림을 제공하였다.

검색어 : 딱정벌레목, 바구미과, 좁쌀바구미아과, 분류, 한국

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